

C E L E B R A T I N G



A HISTORY OF ANALYTIC SERVICES INC.

ANALYTIC SERVICES INC.







Informing decisions that shape the Nation's future



Written By David Bounds

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A HISTORY OF ANALYTIC SERVICES INC.

Dedicated to—in the words of the senior leadership over the life of the corporation so far—the "people, people, people" of Analytic Services Inc., for their efforts that have made this corporation, for their efforts that have helped make this Nation.







LAUNCH 1958-19761
TRAJECTORY 1977-1989 25
ORBIT 1990-1999 49
HORIZON 2000-2008

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Saumch 1958–1976

The Air Force had an important need and the answer was to create Analytic Services. Simply put, that is how Analytic Services Inc. began, and they have been serving the Nation's interests—military, government, and civil—for half a century since.

Those fifty years are quite a story.

What happened between that original Air Force need and the "ANSER" is a story to itself. The



research outfit that came to be Analytic Services was an unexpected development. After the first several years of the company's growth, the leadership were not sure how far the company might grow. They served the Air Force—the "continuing level of effort" for which Analytic Services was created. In so doing, they served the United States—that was the primary focus of the leadership and the staff.

Analytic Services would later begin looking beyond the Air Force work simply because others beyond the Air Force came looking for Analytic Services' work. They expanded, but they did it slowly, maintaining the integrity of their primary work.



The new work meant new challenges—an added benefit to a corporation who was all about its people and who therefore sought ways to keep expanding the staff's horizons.

Looking over the horizon for their work soon led—inevitably, one might say—to looking over the horizon of that very work. By the early 1970s, the leadership spent a little time imagining an existence beyond the Air Force; not because they wanted such a future, but because they were exercising sound judgment about the company's future...however far it might stretch.

It was a wise thing to do because the pond of government-military contract work soon began swelling into a lake. That lake would later become a veritable ocean whose tides everyone would scan but no one could predict.

It was a similar over-the-horizon insight that introduced the original idea that led to the creation of Analytic Services. The idea came from within the Air Force, sparked by their chief scientist, a Princeton University department head on loan to the Air Force.

He wrote a report that would lead to the establishment of an organization whose qualities would not only make it stand up, but also stand out...



The Perkins Report

In 1956, the Air Force invited a Princeton University leader to become its chief scientist. Dr. Courtland D. Perkins was the chairman of the Aerospace and Mechanical Sciences Department at Princeton at the time. The university gave Dr. Perkins leave to take the chief scientist position, which he held from mid-1956 to late 1957. Before he returned to his Princeton chairmanship, Dr. Perkins submitted a key report to the Air Force.

In that report he recommended that the Air Force set up a special group of scientists and engineers—many of an established professional stature—to make technical expertise available to the Air Force on a quick response basis.

The reason for this special group: to help develop technically sound proposals for the research and development of new weapons systems. Lending professional depth to such proposals would also aid the Air Force in defending those proposals in the Department of Defense and before Congress.

Specifically, the research group would support the Air Force director who was responsible for formulating the development planning objectives of the Air Force. Part of that work for the Air Force Director of Development Planning (AFDAP) involved estimating the technical feasibility of potential future weapon systems, techniques, and equipment. Particularly for the development of weapons systems, the Air Force relied on both experienced military judgment and comprehensive analyses of such factors as technological risk.

The increasing need for such quick-response analyses put a premium on the timely collaboration of military and technical experts. This was the late 1950s, the time of Sputnik's launch, the detonation of the atomic bomb, and

"...the special group...would be located near the Pentagon so they could work sideby-side with the Air Force."

the onset of the Cold War. It was also a time when the Air Force lacked a technical expert group who could perform the timely military-technical collaborations needed in these times. That was the insight that Air Force Chief Scientist Dr. Perkins put in his report.

Previously, the Air Force had retained such research assistance through contracts with various study groups located throughout the United States. This dispersion strained the already limited number of military personnel available to monitor and guide the various contracts. The military inputs were insufficient and untimely as a result; the final results of the research itself suffered. *Irrelevance* crept into the process as many of the studies unfolded in isolation from the realities of the Air Force military environment.



A key aspect of Dr. Perkins' vision, therefore, was that the special group of scientists and engineers would be located near the Pentagon so they could work side by side with the Air Force.

The Air Force adopted the Perkins-inspired concept in June 1957. Instead of spreading study funds among various study agencies located around the nation, the Air Force concentrated the funds in one contractor located in Washington, D.C. To select that contractor, the Air Force carefully considered various sources of analytic services. The final decision: Increase the level of effort with one company who had been providing satisfactory services to the Air Force for six years. That company was Corvey Engineering.

The "augmented capability," as the Air Force called it, that Corvey Engineering created within their structure was dubbed the Scientific Analysis Office (SAO). Specifically, the SAO would carry out analyses and evaluations regarding the weapon systems and techniques that would most effectively accomplish the Air Force mission "under probable future conditions." Corvey Engineering principal Dr. Peter A. Cole became the acting director of the SAO. They were set to conduct studies in all of the major Air Force mission areas.

The Scientific Analysis Office faced an unexpected turn in the road almost as soon as it set out.

An "Anser" to the Melpar-Industry "Problem"

Not long after the Scientific Analysis Office (SAO) was formed, the Corvey Engineering Company was incorporated into Melpar, Inc., a major developer of electronic equipment. The SAO's new corporate aegis soon impeded the research group's studies. Industry organizations who might otherwise give inputs to SAO studies were reluctant to do so now because of the proprietary information that would doubtless be included in their inputs.

Industry did not consider the SAO to be as separate a division within Melpar as Melpar said it was.

To mitigate industry trepidation, the SAO established effective safeguards to prevent other Melpar divisions from accessing the SAO-privileged information. However, the safeguards were not enough to solve the Melparindustry "problem." (The Air Force



The RAND Corporation's original headquarters in Santa Monica, California.



would later note that, despite the alleged vulnerability of proprietary information, Melpar carried out its contract in a completely satisfactory manner.) The SAO's work would have to be *entirely* separate from commercial interest.

The Air Force sought a way to solve the problem, to find SAO-like work elsewhere—or transplant the SAO work to somewhere else—in an organization that was "clean as a hound's tooth" (i.e., free from conflict of interest). The Air Force embarked on a nationwide search to find an alternative to the SAO. They drew up a list of organizations that included "think tanks" both profit and non-profit. The search led the Air Force to RAND.

RAND was prominent. The Research And Development (RAND) organization began during World War II as a brainchild of General H. H. "Hap" Arnold, who was catalyst to the creation of the United States Air Force and sculptor of the service after it began in 1947. He successfully partnered military and scientific experts during the war, and to keep that partnership from dissolving after the war, General Arnold fostered the creation of RAND.

After more than a decade of research operations, the not-for-profit company had grown in stature as an accomplished, well-respected organization. The respect came from both sides of the government-military and industry line. Industry confidence in RAND's utility of proprietary information—combined with the Air Force's long and successful association with RAND—put the not-for-profit company at the top of the Air Force's list.

The idea of RAND establishing in Washington a division to take over the SAO work compelled Air Force Deputy Chief of Staff for Development Lieutenant General Roscoe C. Wilson, and his Director of Development Planning, Major General L. S. Stranathan, to approach RAND. RAND agreed—not to take on the work directly but to accomplish the end result, which was to give to the Air Force the same assistance that the SAO had been giving them.

RAND had a different idea for how to go about accomplishing that result. The short-term, close-support nature of the Air Force assignments for which the SAO had been created were not fully compatible with RAND's emphasis on longer-term planning research. To fulfill the Air Force's need, RAND would establish a separate non-profit organization and help it get underway.

Although a new corporation was not what the Air Force had originally contemplated, they deferred to RAND's experience and reputation and heartily agreed with the plan.



Analytic Services Inc. Begins

On July 28, 1958, Analytic Services Incorporated—soon dubbed "ANSER" by its first president—was chartered as an independent non-profit corporation in California (RAND's headquarters resided in Santa Monica). The ANSER offices were located in Alexandria, Virginia.

Three RAND officers—President Frank Collbohm (*right*), Treasurer J. Scott King, Jr., and Corporate Counsel E. E. Huddleson, Jr.—incorporated the company. One week later they met in New York City, at the offices of the Ford Foundation (another counselee of Mr. Huddleson's), and elected ANSER's first Board of Trustees.



President Frank Collbohm

In addition to the incorporators, the board included RAND Vice President L. J. Henderson, Jr., and Carl P. Haskins, the President of the Carnegie Institution of Washington. Dr. Stanley J. Lawwill, formerly Deputy Chief Scientist of Strategic Air Command and the first director of the SAO (appointed to that position after the Corvey-Melpar merge), was elected to be ANSER's first president. Dr. Peter A. Cole, who was the acting director of the SAO before Dr. Lawwill was appointed, was later elected as ANSER's vice president for research.

The corporation was ready for business as soon as they could assemble the necessary staff and acquire the necessary office space.

At that first meeting of the Analytic Services' Board of Trustees, Dr. Lawwill described the current research program that ANSER was taking over to support the Air Force Director of Development Planning (AFDAP). He assured the board that, in his opinion, substantially all of the present Melpar employees engaged in the research program would elect to join Analytic Services.

"It's hard to get a new organization going well...[and] to have the mentoring of [RAND] meant a great deal..."

Twenty-five of the forty professional staff and all ten of the support personnel from the Melpar Scientific Analysis Office elected to join the new company when the AFDAP study projects were transferred. There were scientists,

mathematicians, engineers, and economists among the research staff. They were a young group, many of them in their thirties.

One was Harry Emlet, a 31-year-old Princeton graduate whose diverse background included aeronautical engineering. He started in the Advanced Analysis Branch. Because he had been asked to represent the Air Force at an aeronautical conference in Madrid during the week



that ANSER was to become operational, Harry was transferred to ANSER before the trip. So, technically, he was the first employee to join ANSER—two weeks before ANSER began.

On September 15, 1958, Analytic Services Inc. began full operations at 1101 North Royal Street in Alexandria, Virginia. They had leased the 10,000 square feet of office space just days before ANSER opened its doors. Close to the Pentagon, the North Royal Street building sufficed as a place for ANSER to begin—furniture was even included in the lease—but the location was, they knew from the start, temporary.

The search for permanent space was on but so was the *work*. In October, the AFDAP assigned ANSER a list of thirty-three projects to be accomplished by the new company. The move would come later.

To get ANSER on its feet, RAND had furnished a working capital loan (which ANSER soon repaid) and provided accounting and other administrative assistance, but had no responsibility for technical matters or for employees.

Mr. Bennett Boskey, one of ANSER's early members of the Board of Trustees (he would join in 1962), would later reflect on the goodness of RAND in helping ANSER get on its feet. "The spirit was one of encouraging ANSER to be *good* [at what it did]," he said. "It's hard to get a new organization going well...[and] to have the mentoring of a successful organization like RAND meant a great deal to ANSER."

Although RAND-affiliated officers were among ANSER's first trustees, the board planned from ANSER's beginning to eventually develop an *ANSER* board (i.e., the RAND members would withdraw). The shift soon began as several officers with no RAND affiliation were elected to the board: Tom Chappelle as vice president for operations; W. R. Longanecker, Jr., treasurer; and Jim S. Troutman, secretary. Dr. Collbohm stepped down from his role in 1962.

Months after Analytic Services Inc. began, Air Force Director of Development Planning Major General Stranathan wrote of the corporation: "The hoped for benefits of this type of set-up are being realized. There is now no reluctance on the part of industry to furnish the technical inputs."



First Studies, Quick Responses

ANSER's initial studies were as diverse as the company's mission areas: *strategic*, *tactical*, *air defense*, and *advanced analysis*. By the second meeting of ANSER's Board of Trustees, less than three weeks after ANSER began operations, the range of projects ran from studying supersonic decoys to discerning the U.S. military's future in space.

The studies included a relatively new subject: things nuclear. On October 1, 1958, ANSER analysts completed a study on the effects of a moratorium on atomic tests—a subject that, as it turned out, had military ramifications that went beyond the Air Force. On October 31st of that year, President Dwight D. Eisenhower declared a moratorium on all nuclear testing. This sort of work, a military study tinged with national concerns—one part of a much bigger picture—would later turn out to have corporate ramifications for ANSER that went beyond the Air Force.

Some of ANSER's studies were of systems that could stem from anticipated advances in technology. Other studies were of proposed systems based on *existing* technology. One example of a typical contribution in those early years: The Air Force looked at how to phase the B-47's out of its strategic forces while maintaining its combat capabilities. That presented the question, *If the Air Force were to receive more dollars, what systems should it buy to strengthen the Nation's strategic posture?* The question led to a two-week ANSER study. The resultant quick analysis proved to be a starting point for choosing the best mix of forces.

Most of ANSER's early work was of the same quick-response nature because so many problems confronting the Air Staff required immediate evaluations and recommendations. By March 1959, Analytic Services had completed seven of the projects with twelve more projects underway. The remaining fourteen projects stood on the future work agenda.

As ANSER was working the studies, they were also studying *how* they were doing the work. The results of one ANSER project were discussed at the fall 1958 board meeting, because it modeled one kind of "crash study" required by the Air Staff to meet decision deadlines.

One particular crash study that came later proved to be not only historic for the Air Force but also monumental for ANSER, in that it firmly established the company's foundation for future space work. It also demonstrated to the Air Force that its new quick-response research outfit possessed expertise with a truly unique ability to look over the horizon.

The study opportunity came in July 1961. The Air Force Chief of Staff established an ad hoc task group on space planning and appointed Director of Development Planning Major General W. B. Keese—the one whom ANSER worked directly for at that time—to head up the group. ANSER's ability had been sharpened on such projects as the Research Development Objective, so ANSER became part of the ad hoc task group.



The resulting work of that crash study became the Air Force's firstever "10-Year Space Plan" (*right*) unifying the service's position for space systems and space research and improving cooperation between the Air Force, NASA, and other agencies.



Explorer, ANSER

With the United States having launched its first satellite, Explorer I, the same year that Analytic Services Inc. was created, ANSER had been helping the Air Force develop its interest in space from the day ANSER opened those North Royal Street building doors.

One of the initial projects was to draft a development planning objective on the Air Force interest in space. Initially, the study focused on what *should* be the Air Force's role in space— a study that occurred in the face of competing claims by both the Army and Navy to become the lead military agency for space. ANSER looked at space systems that were already feasible, and others that could become feasible (with years of suitable research and development), to fulfill Air Force missions.

The resultant ANSER study underscored the Air Force rationale for space as it was later revealed in official papers. Air and space was a continuum, the Air Force argument went, and the use of space was therefore a natural extension of Air Force roles within the atmosphere. History reveals the well-known part of this story. The Air Force was eventually given the military lead in space.

Harry Emlet remembers a part of the story that only one who had been there would recall, how in the course of that study he educated some Air Force personnel for whom space still bordered on science fiction.

The two talked for several hours. Days later, President Kennedy announced the lunar objective.

The increasing Air Force interest in military uses of space, in tandem with national interests in civil uses of space, meant increasing ANSER work in space. ANSER's space expertise soon began reaching beyond the Air Force. Because of the increased interest at that time in possible U.S.-U.S.S.R cooperative space efforts, the Joint Chiefs of Staff asked the Air Force to help in studying the national lunar program. The purpose: to provide the Joint Chiefs with a sound basis for lending support to that program—including a possible joint U.S.-U.S.S.R. lunar venture.



The prospect of any possible space-related venture between the two countries would become a big ANSER venture years down the road.

While ANSER's initial work in space was primarily military, substantial work in civil space interests came later, with some dovetailing of the space arenas. One such dovetailing came unexpectedly in 1961, a wildly unique opportunity for ANSER that proved soon after to be historic for the nation.

One night shortly before President John F. Kennedy announced to the world that the United States would put a man on the moon by the end of the decade, a call was put through to ANSER: one of the President's special advisors wanted to meet with Harry Emlet, the Advanced Analysis Branch analyst who had worked on such studies as "The Air Force in Space, 1960-1980." He received a call at home from his branch manager around 10:00pm that night, asking if Harry could be at ANSER within the hour.

And so it happened that, around 11:00pm that night, Harry met with the special assistant to the President for space. Harry answered many questions on the technical feasibility, time frame, and cost of accomplishing a manned lunar landing. The two talked for several hours. Days later, President Kennedy announced the national lunar objective.

Reflecting later on the discussion, Harry's conclusion about the impact of his inputs was simple. Based on the evidence of the subsequent lunar program, his responses proved to be quite accurate.

Expansion

In the spring of 1960, Analytic Services Inc. (ANSER) moved its growing staff and studies into permanent office space they had found elsewhere in Alexandria, Virginia. Anticipation over the benefits to be gained from the move to 5202 Leesburg Pike was tangible. Improvement to the technical operations was one thing. The corporate leadership noted

another thing: "The large, quiet, comfortable offices for two analysts each are a marked improvement over the previous quarters."

The modern, two-story structure on Leesburg Pike (*right*) provided ANSER with over 17,000 square feet of space, with another 7,000 square feet available in the basement. The latter characteristic would soon paint a living portrait of the closeness of the Analytic Services-Air Force



ANSER headquarters, Leesburg Pike, Alexandria, VA



relationship: forty-five officers from the Air Force Systems Command—a technological working group—would temporarily move into ten offices in the subterranean space. It would not be the only time that the Air Force would occupy such close proximity to the corporation.

ANSER's facilities finally matched ANSER's needs...for now. For the first time since they formed the company, ANSER had suitable space for its professional staff, technical librarians and illustrators. "Equally important," the leadership further noted, "the pressing requirements for conference room facilities and military desk space have now been met."

The austerity of the surroundings (basic metal desk, etc.) was something that ANSER not only preserved in those early years but prided itself on. Ms. Roberta Carlisle, who would join the company later but still experience first-hand the leadership's intent with the facility and furnishings, put it this way: "We're not here to do Madison Avenue," she said, vocalizing the impression that these surroundings gave. "We're here to do good work. And everyone was pretty comfortable with that."

The proximity of the new building even improved the practicality of *getting* to work. Now there was enough company parking adjacent to the building, and the commuting time to the Pentagon, while almost identical in terms of distance (approximately 6 miles), was improved in terms of connecting travel routes.

The net effect of the new location on the staff was also tangible enough to be recorded: "It is immediately apparent," the ANSER leadership noted, "that the morale of ANSER's personnel has been enhanced considerably by the Corporation's relocation."

With that uplifted morale came a bit of humor about the Leesburg Pike building that was immortalized in the mental photo albums of those who worked there. The two-story headquarters—which one magazine (profiling ANSER in a 1967 issue) described as "somewhat reminiscent of a suburban dry-cleaning plant"—was painted a shade of green that former Chairman of the Board Bob Oliver would later (with a laugh) recall as "the ugliest thing I've ever seen."

So many other ANSER staff working there shared the sentiment, that the Leesburg Pike building became forever known as the *ugly green building* (or, true to the staff's life in acronyms, the "UGB").

The anticipation of more office space grew with the aspirations for, and the acquisitions of, more new work. Some of the aspirations were immediate as the corporation approached full strength (that is, staff proportionate to the work). They were faced with taking on new work either by expanding their contract with the Air Force, or by expanding into work for other Air Staff elements—or both.



ANSER had actually been approached by agencies *outside* of the AFDAP in the course of their first two years' work for the AFDAP. This was the beginning of what would become a hallmark of Analytic Services for years to come: "We didn't go looking for business," Dr. Lawwill would note years later. "We had business come looking for us... That's how ANSER grew." With the AFDAP's approval, and within the capabilities of the corporation, ANSER took on certain non-AFDAP projects.

The Scientific Advisory Board (SAB) was one such agency. ANSER prepared for them a report related to tactical combat situations and chemical-biological warfare. Not long after, the SAB admonished ANSER to expand their support to the Air Staff.

"We don't really know how far ANSER will go," Dr. Lawwill had expressed in a 1960 interview. "But we do believe that it will be a relatively slow growth pattern." The company's conservative approach to growth was embodied in previous Board of Trustees guidance—guidance that they revisited in 1961 as they contemplated expanding Analytic Services' work beyond the AFDAP. The three criteria were that the new work:

- 1. must not conflict with the current AFDAP mission but rather complement it;
- 2. should not interfere with high-priority AFDAP assignments; and
- 3. should be of a long-range, continuing nature.

By contemplating this new tack into uncharted waters in 1961, the board had taken stock of the ANSER vessel, sizing up its structure and crew and contents, and found its seaworthiness to be as intact as they could make it for what appeared to be on the horizon.

Using those three criteria, the board subsequently adopted a policy of gradual expansion. After recording this new policy in the minutes for May 1961, the board discussed the use of the company's assets. They suggested to the management that assets be conserved for the near future.

Both the future of Analytic Services and the past were toasted in 1962 when the company held its first anniversary celebration. The celebration, while small, was apropos for a company whose leadership had sought from the beginning to establish a corporate culture of *people* doing important work for the public welfare and security of the United States.



Analytic Services' five-year anniversary celebration.

In five years, that culture had come to include a number of significant things, some of which are with the company still today. In 1961, for example, ANSER revised the "Patents



and Copyrights" section of the Administrative and Personnel Policies manual to include the policy that a cash award of \$50.00 would go to any employee at the time of a patent disclosure, with an additional \$25.00 when the patent was issued. With that, ANSER established its first incentive program.

The incentive of achieving further education with ANSER's assistance—a benefit that senior leadership emphasized from the company's start—was benefiting many ANSER personnel. Approximately one-third of the thirty-nine professional staff were enrolled in graduate studies at local universities.

In 1963, Robert T. McIntyre, who worked in ANSER's Defense Branch, obtained the first graduate degree under ANSER's educational assistance program, graduating from George Washington University with Master of Science in Engineering.

The fruition of such a benefit proved the leadership's notion about a people-oriented organization: The ANSER name rising was nothing without those within ANSER rising in the work that they did, in their personal development to do that work, and in the credit that they received for doing it.

Name on the Rise

As Analytic Services' talent began deepening and its reputation began broadening in the early 1960s, through their support of the AFDAP—now called the Air Force Directorate of Development Planning (AFRDP)—there were Air Force offices *outside of* the AFRDP who sought to apply ANSER to their work.

The new demand reflected Major General Stranathan's words about the company in his January 1959 letter about Analytic Services (ANSER), where he had written that "if for any

This was the life of a corporation adapting to the nation's interests...

reason the [ANSER] group should be forced to cease operation...it would constitute a major set-back to our Air Force planning effort." Analytic Services was making a name for itself because it was making an impact on the Air Force.

Ironically, because ANSER's aim was *not* to make a name for itself—their aim was to serve the nation's interests—anonymity was a characteristic of ANSER during those early years. "ANSER makes no headlines, has no publicity man," wrote *Space Digest* during those 1960s times. ANSER had done its work, the magazine wrote, "with such a near-passion for anonymity that it was only a couple of years ago that the corporation and its staff of fifty-three analysts began to get 'by-lines' on the studies they produced."



That slight break from anonymity was the Air Force's doing, not ANSER's. From the start, the ANSER documents describing study results were typically published as Air Staff documents bearing no mention of ANSER authorship—even though ANSER personnel often presented briefings within the defense community. The era of Secretary of Defense Robert McNamara, with its demand for documents with detailed analytical methods backing up study results, led in 1964 to ANSER's technical assistance being specified in studies that led to official Air Force positions. Documents that did *not* involve official Air Force positions were published as ANSER reports and memoranda.

ANSER's leadership took the endeavor one step further by authorizing notes from the various branches to be published for dissemination "informally and quickly" to the Air Force and the research and development community. The notes revealed ANSER's analytical methods and preliminary findings.

Keeping up with and remaining close to that Air Force community often entailed the kind of notes that change the face of the organization. Organizational changes in the Air Force

that affected the research and development branch of the service typically entailed some organizational change within ANSER. For that reason, such changes were simply a fact of ANSER life.

ANSER began in 1958 with four branches: SAC (Strategic Air Command), TAC (Tactical Air Command), Air Defense, and Advanced Analysis. The first three branches addressed the Air Force as it was; the Advanced Analysis Branch tackled where the Air Force was going—or *should* go. That branch evaluated



Board of Trustees meeting, circa 1965.

the state-of-the-art to determine future system possibilities and their feasibility.

Several years later, ANSER leadership decided to organize a fifth branch, the Objectives Branch, to provide "increased flexibility and ease of response to problems" of the Air Force offices that ANSER supported.

Two years after *that*, the Air Force's emphasis on technology studies led ANSER to refocus the Advanced Analysis Branch and rename it the Research and Technology branch.

That same year, in 1964, ANSER also formed an Economic Analysis Branch.

This was the life of a corporation ultimately adapting to the nation's interests. And this ability to adapt would become a lifelong characteristic of Analytic Services.



Sometimes factors internal to ANSER effected branch changes. In 1965 the tragic death of one ANSER professional, Objectives Branch Chief Tom Davis, brought about a reorganization of that branch. Renamed the Plans Branch, it focused on analyses of Air Force plans, policies, and objectives for operational requirements and research and development.

However, the changing environment in ANSER's primary sponsor—the Air Force Directorate of Operational Requirements and Development Plans (AFRDQ), as it was now called—soon steered Plans Branch activities in another direction. A major reorganization in the Air Force shifted the emphasis in ANSER studies away from long-range research and development planning, and toward more current and near-term analyses.

ANSER would later consolidate its six branches into five, foregoing a Plans Branch and merging it into the Tactical Branch.

The expanded scope of the new directorate needed more ANSER assistance than ANSER had manpower to fulfill. The excess of demand was a good problem to have, but the balance it required to keep up the good work (maintain its reputation) and to find new good people (sustain its recruiting) was a delicate one.

One fulcrum-like effort at that balance would set ANSER on a path whose dividends, some of which were immediate, would not be fully seen until many years later.

The Research (and the Reputation) Widens

To strengthen the company while at the same time stretching it, Analytic Services (ANSER) struck upon a novel idea: create a research program with ANSER's own assets. The program would work out the muscles of the

Paying for such endeavors from its own assets...would become an integral part of ANSER's identity.

staff's professional capabilities, increasing their strength to carry out the company's chartered functions. Projects would therefore be limited to the scope of ANSER's charter, the level of effort small compared with the company's overall level of effort.

A fundamental aim of the projects was to perform work that they might undertake for government agencies. They would make the results of the research available to both those agencies and the Air Force—who, of course, would be kept apprised of the scope and progress of the program.

The plans for the *independent* research program, as it was called, were expedited in mid-1965, and the program was initially formed around four study projects. The first looked at how skills in the aerospace industry might be transferred to the public sector. The catalyst for



this study was the State of California, which had contracted with four aerospace companies to study the means for satisfying certain public needs. ANSER provided the data necessary to test the hypotheses of that work.

ANSER's own initial step into "non-defense" work occurred that year. The National Commission on Technology, Automation, and Economic Progress offered to cosponsor the study through a small grant. ANSER accepted.

The value of ANSER's analyses and systems research outside of the defense community was the subject of one other study in ANSER's pilot program for independent research. Another had a "non-defense" aim *within* a defense context: analyzing hypotheses about the paraphysical effects of weapons (e.g., "psychic effects of weapons are a function of culture as well as individual characteristics").

Paying for such endeavors from its own assets—a tack that would become an integral part of ANSER's identity—Analytic Services was free to reach for that next key study that might solve a problem, present or future.

Before the end of 1966, the board noted the increasing number of visitors to ANSER who came to "consult, provide inputs, and review work under way." The number of others outside of ANSER and the Air Force who were watching all of this—the scope, depth, and impact of ANSER's work—was growing. One noticeable result of the visitations was a "gratifying broadening of ANSER's reputation, capabilities, and influence." One of those visitors was the Office of the Secretary of Defense.

Some of ANSER's work for the Air Force was reaching directly into such higher levels of military leadership as the Office of the Secretary of Defense in the late 1960s. In some cases, such high-profile work would influence an era farther down the road than the era in which it was done.



Over-The Horizon-Backscatter (OTH-B) radar

The Over-the-Horizon-Backscatter (OTH-B) radar (*left*) was one such piece of work. With a radar system like this, which could see far beyond the range of conventional microwave radars, the U.S. could look out over the western and eastern horizons in ways never before possible. It was a Cold War essential, the ability to see an incoming attack as far in advance as possible and to react.

In its early years, ANSER had suggested to the Air Force that a promising new technology might provide that over-the-horizon radar capability to the air surveillance

network for the continental United States. By 1967, the state of the art had reached the point



where ANSER analysts and others believed that serious consideration should be given to developing an operational OTH-B system.

Anticipating an Air Force decision to submit a "concept formulation package" on the radar system to the Department of Defense (DoD), ANSER proposed to the Air Force Directorate of Operational Requirements and Development Plans (AFRDQ) an analysis to provide a more current data base for the system. In late 1967, they asked ANSER to assist in preparing the concept package.

ANSER played a major role in developing the supporting analyses, especially in highlighting the system's survivability, effectiveness, and feasibility. While they coordinated inputs from both the Aerospace Defense Command (ADC) and the Air Force Systems Command, ANSER's analyses were the key element in AFRDQ actions and guidance for the development of Air Force recommendations on the configuration of, and rationale for, the OTH-B system.

In mid-1969, the Air Force submitted the ANSER-assisted concept package for the OTH-B to the Secretary of the Air Force, who soon forwarded it the Secretary of Defense. ANSER would continue providing the technical consultation and the data that the Air Force needed to assist the Office of the Secretary of Defense, as they prepared the draft Presidential Memorandum upon which development decisions for the OTH-B would be based. The following year, the Air Force's Rome Air Development Center developed, installed and evaluated the radar components that became a prototype for the OTH-B radar system.

Developed over many years following that, it would become, by several criteria, the largest radar system in the world. A solid idea early on that would later become manifest in the nation's ability to defend its homeland, the OTH-B illustrated how ANSER's research and reputation began to prosper through the 1960s—and stood to grow from there.

Move Into the "Non-Defense"

The quality of work on such projects as "homeland defense" radar, and the *potential* of such work as the independent research program might yield, were a boost to the value of Analytic Services Inc. (ANSER), especially at a time when the U. S. Government was questioning the value of "captive" research centers.

The impetus for the inquiries was not solely the government's. Companies both "for-profit" and "non-profit" were steadily populating the world of military-government work. The obvious benefits of the latter were questioned by the former. Those questions surfaced in



what became, by the late 1960s, congressional-level discussion about the Federal Contract Research Centers (FCRCs).

In early 1967, ANSER President Dr. Lawwill related to the corporate leadership the findings of a Defense Science Board study on the current FCRCs. He anticipated that the Air Force would request from the FCRCs a statement about their "primary purposes and current technical objectives." ANSER went ahead and assembled a report before the Air Force asked for it.

That was the beginning of ANSER's annual report.

"...because of the effectiveness of... its personnel... [ANSER]... is filling a very real need...to assure the national security." In the first report, the one for 1968, the leadership reviewed all that the corporation had done in the years since its inception, and frankly apprised everything from its method of operations to its performance. ANSER's

timely, objective analyses and research were a "major input" to Air Force and DoD decisionmakers, they noted. Strategic missiles and light intratheater transport were among the studies highlighted in the report.

They also noted the discussions they had initiated with Air Force representatives over the company's limitations—how ANSER could take what they were already doing well and do it better. The ANSER leadership concluded that the company, "because of the effectiveness of its operations and the competence of its personnel, is filling a very real need in support of the Department of Defense program to assure the national security."

That splendid feeling resonated through the company's tenth anniversary celebration in 1968. On a Friday in October, Analytic Services Inc. commemorated their tenth year of existence by lunching at the Carnegie Institution of Washington. Attending the lunch were more than just ANSER staff and trustees and ex-trustees. The list of Air Force and DoD officials attending read like a "who's who" list of important people in ANSER's circles of influence.

ANSER leadership would later note the many congratulations and commendations expressed by those officials over ANSER's operations during the past decade.

Analytic Services Inc. celebrated even as they prepared for something sobering on the horizon: the possibility of a profound change in their relationship with the Air Force. The quasi-annual report that the Air Force had requested of ANSER in 1967 was part of data that the Office of the Secretary of Defense (OSD) was gathering to prepare for testimony to the Congress on the FCRCs. In 1969, FCRC funding received a general cut—a cut that, the board viewed, would probably not be relaxed.



Fortunately for ANSER, a very different FCRC development that year stood to ease the strains of the FCRC life—and perhaps even to open up a whole new life of public service.

Those possibilities began on March 4, 1969, when Secretary of Defense Melvin Laird sent a letter to a number of federal agencies, offering Department of Defense (DoD) resources to help the civilian sector alleviate some of the nation's "serious domestic problems."



The resources he offered were a wealth of "Defense-developed technical experience," namely the Federal Contract Research Centers (FCRCs). RAND and the Lincoln Laboratory at MIT were among that group that included Analytic Services.

Sponsors such as federal agencies and state and city governments might use FCRC skills "quite fruitfully," he further stated. The diversification, Secretary Laird wrote, would not dilute the FCRCs' efforts in critical national security work. The FCRCs were not expected to commit more than twenty percent of their annual work toward non-DoD activity.

A memorandum explaining the new policy was released the next day. In it, Dr. John Foster, Jr., DoD's Director of Defense Research and Engineering, admonished the FCRCs to help with such domestic needs as transportation, urban redevelopment, and medical services.

Analytic Services was officially moving into the "non-defense."

The leadership of Analytic Services saw the "Laird letter" policy as only impacting ANSER minimally. The policies that ANSER had already established relating to work for sponsors other than the Air Force were consistent with the new DoD policy. With the Laird letter, then, ANSER stood to gain more opportunities to contribute to the public interest. Conversely, such work would also contribute to ANSER's interests—galvanizing the professional staff and enhancing the company's capabilities.

Given the independent research that ANSER had been doing since 1965, the DoD stimulus for research centers such as ANSER to branch out into "non-defense" work was less an exhortation than a confirmation.



Future/Aircraft

Analytic Services' (ANSER) study subjects had become so diverse by the late 1960s that the corporate leadership started including a list of program- and project-specific acronyms and definitions in their meeting minutes. The work nomenclature reflected the work range.

One relatively new term in the vocabulary by then was *electronic warfare*, a subject that was encompassed, at that time, by war. Since the early 1960s, the Air Force had been playing a big role in the nation's increasing effort in Southeast Asia. Tied at the hip with the Air Force to study subjects like tactical aircraft, ANSER's analyses thus bore on U.S. capability in what became the Vietnam War.

ANSER's efforts ended up occupying even its leadership in a rather unique way. The Air Force had sent one of ANSER's aeronautical engineers, William Schlegel, on a three-month analytical assignment to Saigon in 1963. ANSER President Dr. Lawwill accompanied him to assist with introductions and to gain a better appreciation of the operational problems in that theatre of war.

Radar technology onboard aircraft was one such problem circa 1969. Airborne radar detection of airborne targets was often obscured by radar returns or "clutter" from the earth. The problem of detecting lowflying aircraft ("look-down problem") and the subsequent problem of shooting down hostile aircraft against an earth background ("shoot-down problem") had both been encountered in air combat in Southeast Asia.



The A-10 began as the "A-X," one of the future military aircraft ANSER studied in 1966.

ANSER analyzed tactical aircraft missions

to glean data on the "minimum acceptable" look-down capability in future tactical fighters in terms of range and look angle. Technology had by then advanced to the point that it appeared feasible to design airborne radar which would be able to do what ANSER analysts were reporting that it needed to do. One of the aircraft that ANSER examined for the purposes of the study was a certain fighter dubbed the "F-X" ("Fighter-Experimental"), what would later become the F-15. The study came on the heels of another experimental tactical-aircraft study by ANSER, that of the "A-X" ("Attack-Experimental"), which would later become known as the A-10 (*above*).

In fact, tactical aircraft-related subjects had so inhabited ANSER studies by then that some aspect of it (aircraft identification, close air support, etc.) occupied three of ANSER's five



branches—or "divisions," rather. ANSER's staff and studies had so grown by 1970 that ANSER changed the *branches* to *divisions*.

So when ANSER's initial work for the AF/RDR in 1970 became busy enough that the company needed to organize the staff efforts under one "shingle," a Reconnaissance *Division* was created. High altitude cameras on a reconnaissance variant of the F-4 aircraft was one of the projects. Another project focused on "COMPASS DWELL," a concept for remotely monitoring and collecting data on electronic signals through the use of unmanned aircraft or *drones*.

ANSER's setting up a Reconnaissance Division exemplified the agility they had started with—and strove to sustain. Organizing to manage such work as the drone studies helped ANSER prepare for time-sensitive demands—demands that sometimes trumped organization, causing analysts to drop one endeavor in mid-stream to complete another.

For example, at one point the AF/RDR asked ANSER to temporarily drop a plan they had been developing for drones. The directorate was writing a major Office of the Secretary of Defense (OSD) document on drones, and they needed ANSER's analytical eyes on it. Such interruptions happened to ANSER individuals as well. One analyst doing a COMPASS DWELL analysis had to immediately halt the work after he was called on to assist in a higher-priority special electronic warfare study. When that study was over, the analysts returned to the vulnerability study.

"This kind of special assistance frequently has substantial impact on our projects," the ANSER leadership later noted. But, time and again, they did it; whether individually or collectively, as the work dictated, they buckled down and did the work precisely as their sponsor prescribed.

The Turning Point

Doing the work of their sponsors, organizing as needed to meet that work's demands, staying true to the charter that guided them—this challenging but bright life as Analytic Services (ANSER) knew it, heading into the mid-1970s, was lived with eyes on a set of clouds that was widening and darkening on the horizon. That stormfront was the U.S. government's scrutiny of Federal Contract Research Centers (FCRC) such as ANSER.

The research centers had been living within eyeshot of those clouds for some time. One former FCRC had "gone profit," for example, and in so doing became a flashpoint to the debate over the inherent value to the federal government of holding research companies "captive" to federal work.



The tension of being an FCRC was felt throughout the company. The FCRC status, the leadership noted, was "a special status that...has somewhat impaired our ability to support [DoD] clients as fully as they and we wished." They soon developed a game plan for what worked under the FCRC ceiling even as they game-planned what would happen if they suddenly broke through that ceiling. Some personnel resigning from ANSER during these years cited ANSER's questionable future as an FCRC as the major factor in their decision.



The Pentagon

The possibility—for better *and* for worse—of being released from that "captivity" lingered as the scrutiny of FCRCs increased.

In 1972, an optimistic voice for the FCRCs was entered into the congressional record. Dr. John S. Foster, Jr., the DoD director of research and engineering, addressed the Senate Armed Services Committee on the research centers. ANSER was among the centers whose origin, mission, and summary of current work were briefly described.

Dr. Foster's testimony came on the heels of recent congressional actions—reducing the FCRCs funding, for one. Suggesting that the FCRCs' work should be moved "in-house" (i.e., within government agencies) was another. Senior Air Force leadership discussed the latter notion in a memo that same year: "While it might be theoretically possible [to do the FCRCs' work in-house]...one would not necessarily get the same degree of objectivity."

That objectivity was one thing ANSER brought to the table for the Air Force, in the context of serving the public welfare and security of the nation. Giving a rigorously objective opinion was in fact one of the things that ANSER prided itself on. That objectivity "gives the place a reputation for intellectual independence," Dr. Joe Platt, ANSER's first chairman of the board, would later reflect. "[It says] that we are not the creatures of our clients."

That objectivity would outlive not only this opening era of Analytic Services Inc., but also the eras to come. It was a core value from which the staff and their leadership would not be shaken. George Thompson, who would join the company in the late 1970s, would later reflect on a study situation where ANSER's reputation for objectivity was put to the test.

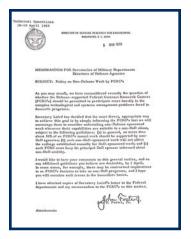
When George finished the study as the sponsor had prescribed, the results were not what the sponsor had wanted to see. *Ever again*. An exhortation to go back to the original results—a question of what should happen with the final results—put George on the phone with his corporate leadership. "We back you one hundred percent," was the reply George received. It



was the spirit of ANSER on paper—its objectivity, its integrity, its commitment to something beyond a paycheck—put to the test in the workplace.

ANSER's reputation came through the fire untouched. (And one ANSER analyst's pride in his company came out of that situation *expanded*.)

The exercise of that objectivity was inherent to Dr. Foster's conclusion to the Senate committee in 1972, that "these organizations [such as ANSER] perform a needed and continuing function better than can other available sources." The DoD, he further noted, did perform a lot of its own internal planning, study, and analysis. But the often-missing ingredients to such in-house efforts were such things as sufficiently broad data bases and critiques of *their* assessments. "To obtain help," Dr. Foster said, "we turn outside."



1976 DoD letter to ANSER, ending its status as a Federal Contract Research Center.

The "outside" service that ANSER provided as an FCRC came to an end as of October 1, 1976, when the Department of Defense removed them from that list of research centers. Analytic Services was now fully available for purely contract work for the Air Force and for sponsors beyond the Air Force. DoD agencies could increase their use of ANSER for important studies.

The reaction in ANSER was mixed. From one perspective, this change in status had swung open the door to the competitive environment and bodily thrown Analytic Services through it. That provoked trepidation, even anxiety for some. They had not completely prepared for being jarred from a longstanding position. "There was never any notion of breaking away from the client," observed Al Madansky, who joined the Board of Trustees in the year before the breaking away occurred, "because the client was the primary reason for ANSER's existence."

"That objectivity would outlive not only this opening era of Analytic Service Inc., but also the eras to come."

From another perspective, that door to the competitive environment had swung wide and now—look at that horizon—ANSER was standing in it. "Here's an opportunity: ANSER is so good," Mr. Alan Boyd, also a member of the

Board of Trustees at that time, later reflected on his sense of the ANSER leadership's overall reaction to being *de-FCRC'd*. "[Now] it's just a matter of getting known."

In either case, ANSER brushed themselves off, straightened their posture, and walked on.



The change marked a turning point in ANSER's way of life, emphasizing their intention to "achieve great diversification, and to expand in a manner that will be compatible with [ANSER's] obligations to [its] clients." Increased attention to health services research, which ANSER had begun years earlier on an invitation and an investment, was one example of that diversification. The leadership deemed that area as one appropriate for the company to pursue further at that point.

And they would continue to pursue the Air Force—emphasis on the word *pursuit*. What had formerly been *the* relationship through which ANSER filtered every other working relationship since its inception, was now a relationship they would have to constantly pursue...competing and re-competing, year in and out as necessary. The "new" relationship with the Air Force was, in a sense, the old relationship by another name.

The Air Force, for the time at least, thought so too. The Deputy Chief of Staff, Research and Development declared that "the Air Force relationship with ANSER is to be essentially the same regardless of contractual status." ANSER intended to continue coordinating potential new activities with the Air Force.

And with arenas from *space* to *health* drawing ANSER further into chances to become known, in order to do more good for the nation, it was as if a whole new world lay open in front of them.



It was a new environment into which Analytic Services moved in 1976, after being released from its status as a Federal Contract Research Center (FCRC). A changing Department of Defense in the wake of the Vietnam War was one example of that environment.

It was a changing Analytic Services that stepped into that new environment too.



No longer a dedicated element, the corporation had left behind the closeness with the Air Force that had marked Analytic Services' early years. The corporation was now a competitive element—out among many who vied for the sort of close relationship with the Air Force and other sponsors—and that would require adaptation.

Doing that without fundamentally changing the identity of the corporation—that was a challenge.

Before the end of ANSER's first decade, the leadership observed how difficult it was for the impact of their work to be truly judged until some time had passed. So much of what the company had been doing was experimental, looking years into the future.



In the late 1950s, ANSER had looked over the horizon to the 1970s. Now it was the 1970s. The future they had studied was now the present.

The corporate leadership observed this shift as the 1970s gave way to the 1980s: "The results of our studies [have] led to improvements in communications, space technology, and defense that benefit us all today... This rapid transition from research to practical application underscores ANSER's aim: studies and analyses decision makers can use."

Such practical applications came in part from ANSER's growing diversification. The health field was one example, a foot in the door that happened because of ANSER's reputation—and because of ANSER's insight.

While health systems would not become for them what space systems had been, that piece would soon prove valuable to the integrity of the corporate operations. The point at which it would prove valuable: surviving in the competitive environment.

In this era, that was not only valuable but critical. For a lean non-profit operation facing stocky for-profit companies in the potential competitions, "We just didn't see how we could compete," then board member Alan Boyd would later recall. But they did it. "Here it is; here we go," Mr. Boyd added, about the attitude of the leadership and the staff.

As ANSER moved through its first decade as an independent non-profit corporation in that competitive environment, the diversified work that started as a foothold was fast becoming a whole new part of the company's foundation. It was ANSER's future now—and it made them as nervous as much as it excited them, standing on one part of the foundation while pouring another part of it. Would the whole remain intact?

Analytic Services would not only survive in this new environment, but they would also thrive amid the fluctuations of the contracting environment—an environment that would be roiled by a whole new fluctuation at the end of the 1980s, with the fall of a certain wall...



Moving Out, Moving In

ANSER's removal from the list of Federal Contract Research Centers (FCRCs) and the company's move to an entirely new location in the same year was a coincidence. The juxtaposition of the two big events, however, lent a symbolism to one because of the other. Moving from FCRC to *completely* independent non-profit meant new things. Moving from Leesburg Pike to Army-Navy Drive in 1976 was the result of some of those new things.

It would not be the first time that an ANSER move would become inadvertently rich with symbolism tied to a new era in the company's history.

By the late 1970s, the expansion of Analytic Services' (ANSER) contract support had finally entailed such growth in staff that the company was using literally every square inch of existing office space. As of 1976, that facility on Leesburg Pike in Arlington that had been home to ANSER since 1960 could no longer contain the entire staff. The Health Systems Division in particular was pushing at the company's physical seams.

The burgeoning health work—a cutting-edge field at that time, for what ANSER was doing—began with ANSER just doing good work elsewhere, specifically in the 1960s work of analyst and later division manager Harry Emlet Jr. Approached by an Air Force colleague to put his military-systems analytical eye on a health-systems problem, Harry accepted the invitation to speak at a conference on that problem. And it grew, both for Harry and for ANSER, from there.

A handful of analysts were soon dedicated to the work, which by 1974 included assisting the Air Force Surgeon General with evaluating and developing medical information systems. That same year, ANSER split the health systems work (and Harry, its manager) out of the Tactical Division.

A solution for the office space problem of ANSER's growing Health Systems Division was found in October 1976: 6,000 square feet of auxiliary office space located "within easy walking distance of ANSER's main facility." The facility was open for occupation less than a month later, and the entire Health Systems Division would be the occupants. With that move, the technical staff were separated for the first time in the company's history.

The auxiliary office space solution was temporary though. Even then the board had its eye on regathering the entire staff geographically. The reason was practical, but it was also, professionally speaking, *social*. "ANSER's strength," the board noted in the annual report for 1977, "flows from daily interactions among staff members, an informal process adversely affected by being in separate buildings." It was a banner statement—a banner, that is, that hung over the search that had begun for new office space sufficient to accommodate the entire staff in one facility.



The search came to an end in the fall of 1977 when ANSER, as the board put it, was "fortunate to find in a building near the Pentagon quite satisfactory space that will provide room for modest additional growth." The new building, a "modern office" facility, was located at 400 Army-Navy Drive (*right*) in Arlington, Virginia. ANSER would settle into the fourth and fifth floors.

400 ARMY NAVY DRIVE
(Close to Pentagon)

• th Ricko, 22,000 sq. ft.

• 7th Boor, 22,000 sq. ft.

• 8th Boor, 22,000 sq. ft.

• 9th Boor, 22,000 sq. ft.

• 10th Boor, 22,000 sq. ft.

• 10th Boor, 22,000 sq. ft.

• 110,00/sq. ft. full service
(No Escalations)

• Walking distance to 2 Metro Stops

Two floors in that building would be enough room, the board further noted, to provide "less crowded working space for analysts and improved physical arrangements for support activities, including

Security, Personnel, and Publications." The new location, just across Interstate 395 from the Pentagon, also looked to foster "increased interaction among staff members and ANSER's Department of Defense clients." The move was planned for the spring of 1978.

There was so much going on that was *new*, ANSER even updated its corporate logo prior to the move, to herald the *newness*.

The move went as planned in 1978 and was celebrated, in September that year, along with other significant "moves" for ANSER in its twenty years of existence. Two decades was, the leadership noted, a cause for "rejoicing and reflection."

There was so much going on that was new, ANSER even updated its logo...to herald the newness.

They reflected, for example, on a company characteristic that had changed considerably since the company's inception: the *size* of the staff. Counting 92 analysts and 64 support staff members—making for a full-time staff of 156—

ANSER saw its staff double for the first time in seventeen years. Such an increase in people, and in the complexity of managing them, had been pertinent to the corporation changing its branches to *divisions* in 1970.

The caliber of the staff had continued to increase as well, the board further noted, an improvement that resulted directly from the investment that the leadership had made in Analytic Services' people from the start. More than 35 percent of the analysts now held doctoral degrees.

Education was only one of many investments that Analytic Services had made, in their twenty years so far, that was paying off. They had looked at independent research as a means to spread the company's reach without overextending that reach. That was paying off.

Even though they had only taken a relatively cursory glance at what life without the Air Force as a "sole source" contract might look like, before that life actually began, they had stepped out into this "fearful and exciting thing," as later Chairman of the Board Bob Oliver would recollect of this time. That was starting to pay off.



They were continuing to look, on behalf of the Nation, at where aircraft, air defense, and *much* more would be, not only in the near future but also in the distant future. That had paid off—and was continuing to pay off—if only in the passion of the individual staff in doing what they do.

The life of the company, though, from here on out remained to be seen.

The Health of the Company

One of the things for both reflection and rejoicing in 1978, in the look back over the past *two* years in particular, was a new identity emerging for Analytic Services Inc. (ANSER). "New," that is, for the corporation that was starting to hit its stride in the competitive environment.

Take proposal work, for example, that inextricable (and often complex) element of the competitive environment. For a corporation who had spent the first eighteen years of its existence in a "sole source" (i.e., contractually dedicated to one sponsor) capacity with the Air Force, Analytic Services was understandably lacking in the proposal writing department.

"When I first came to ANSER, very few people dealt with proposals," Dr. Carlos Mariño, who joined the company in 1977, would later reflect on this unusual but exciting time in the company's life. They had to learn the proposal work in a "pull yourself up by your bootstraps kind of way," he said, "but we had people who did it very well."

The primary contingent of those Analytic Services staff who did it very well, Ms. Roberta Carlisle later noted, were those involved in the company's burgeoning work in the health systems field.

Ms. Carlisle, who actually joined ANSER *because of* its involvement in health systems work (because, as she put it, other companies weren't offering this work that "seemed like the future"), shared Dr. Mariño's observation. "When I first started [in 1973]...no one had ever written a competitive proposal.... So that was groundbreaking.... We were feeling our way, spending a *lot* of extra hours for something we weren't sure would work out."

And when, as Ms. Carlisle put it, "we surprised ourselves by winning [the health field work] then we had to *do* the work...

[work which] we'd generally underestimated, what it would take to get the job done, because it took many more hours than what we'd bid. But we did the work. *Everybody* pitched in...because we wanted to do a good job." This was ANSER's primary goal in action, that



goal being, as Mr. Bennet Boskey would put it, "through thick and thin...the *quality of the product*."

The quality of ANSER's product (and of their mettle to do more) led to more opportunities, so much so that Analytic Services eventually split the Health Division in two, with Ms. Carlisle and Dr. Mariño, respectively, the deputy managers of those divisions. Harry Emlet, who had finally been able to trade in "dual-hatting" status by turning over the Tactical Division manager hat to another, was the vice president of health systems.

Despite all of this growth and promise, the plot that Analytic Services carved out in the field of health systems work would not yield the sort of harvest that might turn the whole thing into a consistent *industry* within the company.

"In a way it was surprising," Mr. Boskey later observed. "We restructured the company to help it succeed...had two medical people on the board [who were] people of great dignity... and of extremely wide acquaintances in the medical profession throughout the country. So you'd have thought the conditions were ideal to move into this new area on a successful basis. But it didn't happen."

One reason it didn't happen could have been the push-pull demanded of the corporation taking its old identity into a new environment. "How do we suddenly...look for other areas," Mr. Madansky would recall years later about this era, "and divert our best people from our best client to other possible opportunities...? It was difficult."

The demand, the timing, the hesitancy of those inside the medical profession in the face of this corporation outside, trying to get further in and to help...there was no single discernible factor. There were singular blows, like the loss of the Tri-Service Medical Information Systems (TRIMIS) work—a traumatic blind-side to the company.

"Analytic Services picked itself up and pressed on."

They would later protest the loss and prevail, being offered the chance to compete for it again, but by that time, months later, the original group of ANSER staff had inevitably dispersed.

ANSER had rallied to their people in the wake. An outplacement service helped the affected on to other jobs. Board officers even elected to take salary reductions until the end of fiscal year.

The hindsight of some of the Analytic Services leadership who lived through the setback would, in their reflections as they neared the half-century mark of the corporation, turn up no revelatory writing on the walls of those memories. It was tragic. It happened.

Analytic Services picked itself up and pressed on.



What they gained from that experience was invaluable, for there were always *lessons learned* from every experience, no matter its outcome. But there was also something tangible gained from the health field experience, manifest in the countless proposals undertaken in Analytic Services since.

Those health field proposal efforts, Ms. Carlisle further reflected, which ANSER undertook before it had to face the competitive world, "were a big part of the learning curve that got the company going in the right direction on that.

"Even though we did everything *wrong*..." (her comment here interjected with the quick, knowing laugh of one who has lived the experience she is describing) "...by the time that [proposal work] was a real need, the company was up to the challenge."

The need and the challenge both began in earnest for ANSER around 1980, as they began moving gradually from a conservative position about their identity (the same "good work engenders good work" philosophy that included little thought about outside marketing) to a more aggressive stance (let's go out and market ourselves and *compete*).

It would take some years to complete that movement. The contracting industry itself was relatively new, so there was a lot to learn about proposals and marketing, not just internally but also from other organizations. But movement of this sort was good because it meant that Analytic Services was now a presence (novice though it was at the time) in the fields of competition.

The fields would soon produce more new work with "old" relationships (e.g., the Air Force) and new work from new relationships (e.g., the CIA). And ANSER's "increasingly complex and diversified operations" across those fields would bring them into new areas where not only new relationships would be formed, but new *expertises* be formed as well.

Going Nuclear, Going Into Space...Going On

The nuclear arena was an example of new work from an old relationship. One of ANSER's initial studies in the late 1950s was on the effects of the moratorium on nuclear testing that President Eisenhower had declared not long after ANSER began. The company went on to hire technical staff with diverse nuclear backgrounds like nuclear chemistry and even created "nuclear engineer" as a category of ANSER professional staff. "Nuclear rockets for space propulsion" was a 1962 study.

Working solely for the Air Force during that time meant that ANSER's nuclear-related studies were the *Air Force* kind of nuclear-related: analyses of aircraft-related subjects into



which the nuclear factor was introduced. It wasn't until 1975 that ANSER took on *purely* nuclear studies.

The Nuclear Regulatory Commission (NRC), created that same year, formed a task force in which ANSER was asked to participate. One of the functions of the NRC was to develop regulations to assist in preventing the theft and diversion of radioactive materials. The senior ANSER staff member assigned to this new work was a gentleman named Jack Englund, a mathematician and former professor whose experience prior to joining ANSER in 1963 included scientific advisor to the Strategic Air Command.

Another "old" relationship being made new was that with the Air Force. Missiles, airlift, mission area analysis, and avionics were just a few of the major study areas that ANSER continued to undertake for the Air Force.

And then there was space. In 1978, the space shuttle was nearing its maiden flight, and the Department of Defense (DoD) was looking at the shuttle as one major element in an "overall space transportation system." ANSER helped the Air Force work out a policy for determining the price to charge users outside the DoD for orbiting payloads at high altitudes.

Space *defense* had also become a hot topic, as ANSER's plate of studies in this area showed: *improved space surveillance, increased satellite system survivability,* and *development of anti-satellite capabilities*. It was because of this growing range of work in military space that, in 1978, ANSER created a Space Division.

ANSER's relationship with the Air Force soon branched out in a whole new direction—and in a whole new way for ANSER, as that new direction included work on-site several states away. In January 1979, ANSER signed a one year contract with the Air Force's Aeronautical Systems Division. While it was aligned under the Maryland-based Air Force Systems Command, the Aeronautical Systems Division resided at Wright-Patterson Air Force Base in Dayton, Ohio (*right*).



Wright-Patterson Air Force Base, Dayton, Ohio

ANSER's job in Dayton was to support the program office dubbed "HAVE EXIT," assessing the ability of various electronic countermeasures to protect aircraft and decrease fighter losses during penetrations into hostile airspace. The contract required that most of ANSER's work be done *there*, in Dayton, alongside the Air Force staff.

Jack Brady, one of ANSER's Tactical Division and the one managing the new work at the time, was already living temporarily in Dayton to fulfill the on-site requirement immediately.



Looking toward a time when others might spend permanent time there, the board discussed the prospect of office facilities in Dayton to support the research.

Supporting the research in Dayton would become several chapters in the Analytic Services history, comprising a section that might be entitled "A Successful Strike-Out." The title comes from the observation of one senior ANSER leader who would opine, years later, that the company has "struck out many times in its history and has done so with remarkable success." The Dayton office would eventually close then "reopen" years later, only to close again later...all in pursuit of supporting the Air Force right where they wanted to be supported.

Dayton was the first of the Analytic Services offices to open up outside of Washington, D.C., but it would not be the last of such satellite locations to so depart. More often than not, the "strike-out" would come as a result of work that simply withered on the funding vine and nothing sprang up beside it, to take its place. An office in Fairmont, West Virginia, that would come in later years, to support the National Institute of Justice, would end up being another such strike-out.

But these were not defeats in the total sense of the word.

In each of these chapters, these legs of the Analytic Services journey, there was something learned for the company, something gained for the nation—and vice versa.

"In each of these chapters...there was something learned for the company, something gained for the nation—and vice versa."

The Fairmont venture, for example, would be 1990s work that stemmed from similar work ANSER would undertake in the 1980s. The initial project: image processing research to support the National Center for Missing and Exploited Children (NCMEC). Some of the Fairmont work, over a decade after the NCMEC work: facial recognition technology or *biometrics* to support similar law enforcement initiatives. Most recently, in its 51st year, Analytic Services Inc. has been awarded a contract to support the Army's Biometric Task Force in a DoD-wide effort, once again showing the value of the corporation's willingness to take on tough challenges with uncertain futures.

This was one reason why Analytic Services could take a risk and ultimately fail, yet go on: they were wiser for the experience and sharpened in skill for whatever else lay ahead.

Because no one could ever predict the nation's needs.



A Change In Captains

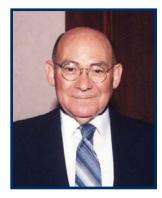
In late 1980, ANSER President Dr. Stan Lawwill announced his intention to retire the following year. When he took that step on May 29, 1981, Dr. Lawwill left the helm of a company he had helped build and navigate through military and scientific waters for the first twenty-three years of its existence. For that voyage, as the board noted in their annual report for 1981, Dr. Lawwill "set the tone of quiet integrity and excellence that continues to be our hallmark."

It is a statement—a legacy—that resonates even now in ANSER's 50th year.

Dr. Lawwill's personal legacy began with the roles of teacher and analyst, first at Northwestern University and then with the Applied Mathematics group at Columbia University. He went on to become a scientist for the Air Force's Strategic Air Command. When he joined the effort in 1958 to organize a company called Analytic Services Incorporated, becoming its first president and chief executive officer, Dr. Lawwill brought to his role some noteworthy characteristics.

His encyclopedic knowledge of military affairs and high standards of objectivity, integrity, and excellence—for himself and for ANSER—were infused with, as the board noted, the "warmth and compassion [of a manager] who never forgot that people are the true assets of ANSER."

By the time Dr. Lawwill (*right*) retired from that leadership more than two decades later, ANSER had grown from a tiny outfit doing a lot of experimental research solely for the Air Force, to a sizable company doing studies and analyses with practical application in communications, space technology, and defense.



Dr. Stan Lawwill

When Dr. Lawwill left the ANSER helm, though, he did not leave the crew entirely. Upon his retirement, Dr. Lawwill remained a member of the Board of Trustees, where he further distinguished himself as an ANSER leader for another decade by bringing "remarkable insight into the complex interactions between scientific analysis and military affairs."

Bringing similar insight to the role of ANSER president and chief executive officer was Dr. Lawwill's successor, Mr. John ("Jack") Englund, who stepped into the office on May 30, 1981. His pre-ANSER career trajectory was similar to Dr. Lawwill's: a mathematician who taught at a university (Creighton) then went on to a scientific role ("operations analyst serving as scientific advisor") for the Strategic Air Command. From there Mr. Englund became a senior analyst with the Arms Control and Disarmament Agency, a nuclear



background that brought him to ANSER and advanced him to the role of Strategic Division chief soon after.

Later reflecting on his entrance into the company, when ANSER was little more than



Mr. John ("Jack") Englund

four years old, Mr. Englund noted that Dr. Lawwill frequently referred to him as "Johnny come lately." By the time he became ANSER's second president, Mr. Englund (*left*) stood at the helm of a company that had more than proven itself to be no "Johnny come lately."

Continuing to prove itself, though—that was one of the challenges in the corporation's post-FCRC era, the beginning of Analytic Services' life as a competitor in the government-military environment. And the man to get the corporation into its stride as a competitor, the corporate leadership would later reflect, was Jack Englund.

He was a man with the conservative heart of ANSER—growth not for growth's sake, but for *impact*—and with a competitive mind for the climate at hand. That 1980's climate was one of uncertain federal budget processes and growing competition for contracts.

ANSER received word in early 1982 about a development regarding its most significant contract: the Air Force would compete the AF/RD (Research, Development and Acquisition) contract. It was the work that, the ANSER leadership noted, had been "the mainstay of our research for almost a quarter of a century."

ANSER's proposal team went into high gear, and the leadership discussed what ANSER would do if they didn't win the contract. Contingency plans were put into place as a result, which would enable ANSER to continue serving in the Nation's interest even if they lost the contract.

The plans remained just that—plans—as ANSER went on to win the contract, three years of work that would begin in 1983.

It was a major achievement in a year of such achievements. ANSER's research in 1982 included some of the most vital national issues, the results of which were "used more widely than ever before to illuminate policy alternatives

"[You] have played a valuable role," President Reagan wrote, "in... America's security."

at the highest levels of the Government." One such effort was support to the Office of the Secretary of Defense (OSD) for its input to the forthcoming National Space Policy. The work stood on ANSER's years of analyzing the potential military uses of space. It would later be noted that "ANSER [had] achieved unique status as a source of expertise" in that area.



ANSER's resulting OSD work became the basis for the DoD space policy, announced in mid-1982, and was an important input to the National Space Policy, announced on July 4th. A similar high profile effort in 1982 involved the President's immediate staff: ANSER assisted the White House Office of Science and Technology in writing a "Report on Contemporary Evolution of U.S. Aeronautical Technology."

The work was done pro bono (i.e., ANSER absorbed the cost of performing the work). Others whom Analytic Services would support pro bono included the National Space Council, the Department of State, and the FAA. As a company whose primary focus was the welfare and security of the United States, ANSER thought enough of such work that they yearly set aside a portion of its assets to do it. Such benevolence continues even today.

The new growth in effort once again entailed concomitant growth in staff and space. ANSER added more than fifty employees in 1982 and leased the seventh floor of the Army-Navy Drive building both to accommodate the new additions and to better facilitate the new work. In April 1982, ANSER moved all three space divisions (comprising more than thirty staff) onto that floor.

Considerable remodeling of the floor during the remainder of the year added a new Sensitive Compartmented Information Facility (SCIF) to alleviate the crowding in ANSER's existing "intelligence 'tank.'" They also built a conference complex that consisted of a board room, four additional conference rooms, a large "commons" area, and a lunch room. Even with this growth ANSER considered where they might go next, looking at office requirements for 1985 and beyond.

All of these achievements, the board noted in its annual report that year, came about "through the dedication and hard work of an exceptionally talented and truly professional group of people—the employees of ANSER." The company's reputation as a "reliable source of information and analysis required for the solution of problems facing the Nation's decision makers" was continuing to build. And it was the people of ANSER, the leadership further emphasized, "who are building this reputation."

President Ronald Reagan lauded that reputation in 1983, when Analytic Services celebrated 25 years. "For a quarter-of-a-century," he wrote in a telegram to the corporation, "your efforts have played a valuable role in analyzing our national defense needs and helping maintain America's security."

The President's words held an added significance that made his congratulations about more than just ANSER's legacy. Some of the work he was acknowledging was tied directly to current initiatives.



Silver and Space

On October 2, 1981, President Reagan had unveiled a plan to modernize strategic defense systems, which included emphasis on the growing importance of command, control, and communications (C³). The Air Force then "relied increasingly" on ANSER's analytic abilities in planning C³ programs, some of which touched on such major systems as the Worldwide Military Command and Control System (WWMCCS), which ANSER had been studying for some time.

One item that President Reagan included in his speech involved past ANSER studies and initiated future ANSER studies: basing for M-X (Peacekeeper) missiles. In the fall of 1979, President Jimmy Carter announced that the U. S. would develop and deploy the M-X ("missile experimental"), a more technologically-advanced intercontinental ballistic missile system that would replace the Minuteman missile system.

The Air Force concurrently announced that they would investigate the practicability of using renewable energy (solar, wind, and geothermal) resources to supply power to the facilities that would house and maintain the M-X system. To assist in that investigation, the Air Force tapped ANSER.

Less than two months after President Carter's announcement, ANSER organized an M-X/RES Industrial Conference to discuss the project's objectives and activities with the world. The under secretary of defense for research and engineering and the under secretary of energy, along with the M-X/RES Project Office, briefed the press and more than 250 representatives of industry.

The RES study was not a long term study, but the M-X missile system project itself was, soon taking on a new name—the Peacekeeper missile—and eventually going on to production, testing, and deployment. ANSER went right along with it, analyzing key issues and concepts as the Air Force directed, the results of which were often briefed at the highest levels of the U. S. government. *How* (e.g., silos?) and *where* (Nevada?) to base the missiles were two such issues, both controversial and complex.

Forty different basing options had been considered by the time President Carter made his announcement in 1979. One study in 1981 looked at such options as basing half the system in Texas and half in New Mexico (versus Nevada and Utah). Further analyses of basing options in 1982 led to defining the Closely Spaced Basing concept—a concept that was briefed all the way up to President Ronald Reagan. In late 1982, he announced it as the final solution to the basing problem (a solution Congress would reject in favor of examining more basing alternatives, which ANSER also studied).



On March 23, 1983, President Reagan unveiled another prolific plan that put ANSER in the middle of its initiatives. In his now famous speech, the President announced the Strategic Defense Initiative, the aim of which was to give the United States the ability to destroy missiles from space. ANSER soon began supporting the organization—the SDIO—created for that initiative.

ANSER was primed to support the new organization. Notwithstanding the extensive space, missile, and other related areas in ANSER's background, they were in some ways on the cutting edge of those efforts. Just the year before, they had supported the Air Force on the ICBM Modernization Plan. When the SDIO came calling in a big way, ANSER answered in a big way.



ANSER's work "increased sharply" in just the first six months of involvement in the President's program.

ANSER staff were soon involved in so many space initiatives that one year it would take the leadership nearly four pages in a sixteen-page annual report to describe them. By 1984, space-related studies alone would increase the staff by almost one-third.

Work such as the Space Defense Architecture 2000 for the Air Force Space Command had elevated ANSER's level of effort to the point that ANSER opened an office in Colorado Springs, Colorado—the home of the newly created command—in the fall of 1983.

Such achievements as these were cause for current celebration in a year of historical celebration. The developments up to that point, in the early 1980s, "augured well for an ANSER future," the leadership noted. ANSER was viewing these achievements through the celebration of the first quarter century they had just completed.

Secretary of the Air Force Verne Orr said as much about the company's future when he wrote, on the occasion of ANSER's silver anniversary, "ANSER's work has been marked by quality, responsiveness, and objectivity that has helped the Air Force become better equipped than ever to carry out its missions in defense of the Nation."



Looking back over a quarter of a century, ANSER's staff had grown from 36 to 230 professionals, and the office space from a temporary 10,000 square feet to a permanent 76,000 square feet. There was more where that came from, one might have casually said, impressed by what ANSER had done and upbeat about what it was going to do.

And the ANSER leadership almost said it in those words when they announced, in the fall of 1983, that they had leased more than 112,000 square feet of office space at Three Crystal Gateway (*left*),



mere blocks from where ANSER then stood on Army-Navy Drive. The facilities would permit growth to approximately 500 staff—a benchmark that ANSER appeared headed for.

The announcement of the Crystal Gateway addition was the inauguration of "Year 26 and Beyond."

"Year 26...and Beyond"

New work soon qualified the Crystal Gateway move, and *expanded* work added to the Colorado Springs office, where several more staff were added to the six research staff out there by late 1984.

The overall large number of new employees galvanized more corporate emphasis on employee development and training: short courses, regular in-house seminars, and video training aids.

The subsequent recruiting activities during the year were intense. At one point in 1984 ANSER conducted 328 interviews of research staff candidates, an astounding number when considering that ANSER was a company of around 275 total personnel when the year began.

Forty-three acceptances out of more than seventy offers was deemed a "very satisfactory" acceptance rate given the heavy competition for good people to hire. And the new hires were noted as "very high" quality, people like Bill R. Johnson, a thirty-year Air Force officer who held a number of positions in NORAD. Another was Ron Turner, whose experience in the physics departments at Ohio State University and the University of Florida translated into similar work in ANSER's Space Technology division.

Space and technology were two of the key words in a unique achievement in the life of ANSER in 1984. There were in fact many key words to ANSER's life in 1984, areas in which ANSER started, excelled, or expanded in a notable way. Model was one such word. Exemplifying the increasing dissemination of ANSER tools and methods, a certain ANSER computer model was selected by the Defense Nuclear Agency for distribution to government and industry organizations as the "standard method for evaluating damage probabilities for hardened targets."

Aircraft was another key word. ANSER's legacy of analyses of fighter requirements and capabilities was directed in 1984 toward the fighter aircraft that would replace the F-15 beginning in the 1990s. The company's inputs helped define the acquisition program for the so-called Advanced Tactical Fighter.



Publication was yet another key word. ANSER's work to assess the Army Material Command's twenty-one laboratories led to one lab contracting ANSER to publish one year's worth of research done by all of the labs. It was a taste of things to come in the publication arm of the company.

The words *space* and *technology* figured prominently among all others in 1984 because the Chief of Staff of the Air Force (CSAF) selected ANSER to participate in the CSAF Innovation Task Force. The objective of the

"...the company's prescience in various technical subjects was like an exquisite lens, finely honed on futuristic studies."

task force was to generate significant innovations in technology, concepts, and organizational structures to meet challenges facing the Air Force through the year 2025.

Of the eight challenges that were defined, ANSER was asked to conduct in-depth technical research and analysis on two: space control and air base survivability. Further honing the research staff's perception of things over the horizon, ANSER's analysis of the proposed concepts considered three different levels of conflict: *low intensity, regional*, and *global*.

In the company's earliest years, they looked a decade ahead for the Air Force's "10-Year Space Plan" (1961). Analytic Services (ANSER) did so again, for long-range technologies for the Air Force, in the comprehensive study dubbed Project Forecast, which was published in 1964.

By the time the Air Force Chief of Staff chartered the Innovation Task Force study in 1984 and selected ANSER as the only organization outside the Air Force to participate in it, the company's prescience in various technical subjects was like an exquisite lens, finely honed on futuristic studies.

Projects Forecast

The following year gave ANSER another opportunity to demonstrate the quality of that lens.

The Air Force initiated another futuristic study while the Innovation Task Force study was ongoing. Where the latter looked at generating technological innovations as far out as the year 2025, this new study would look at systems, capabilities, and technologies that could be "exploited in advanced Air Force systems" between 1995 and 2005. The new study, Project Forecast II, began in June 1985.

The study title was a throwback to its namesake 1964 study, but this new forecast was, as one Air Force Systems Command (AFSC) history volume put it, "a look forward to an uncertain, perhaps revolutionary future in technology and weapon systems development." ANSER staff



were among the 175 civilian and military researchers brought on to the project and divided into eighteen technology, mission, and analysis panels.

ANSER had to literally make room for those involved in Project Forecast II, a group that included thirty-two temporary personnel ANSER had hired, to spread out and work during the months spanning the massive study. That was space ANSER did not have even in the vast Crystal Gateway floors they had recently acquired.

Coincidentally, similar acquisitions were ongoing. In the spring of 1985, ANSER leased two floors in the new Crystal Gateway Four building, expanding the corporate environment by another 26,000+ square feet. When the Project Forecast II invitation arrived two months later, ANSER's leadership immediately set about leasing the appropriate study space.

By the fall of 1985, ANSER had acquired four different suites in the Crystal Gateway complex, each available for at least the nine or so months anticipated to complete ANSER's part in the epic study.



The study's impact was also epic. It was later noted that over \$1 billion in fiscal year 1987 was spent on research and development on the proposals from the Project Forecast II conference. AFSC Commander General Lawrence Skantze, who oversaw the study, stated that same year that Project Forecast II had "to a great extent" shaped Air Force research and development. The command was using the results as the blueprint for developing its science and technology program.

ANSER completed its work for the study in 1986. University of Southern California graduate and retired Air Force officer Tom MacMillan, a senior systems engineer in ANSER's Support Systems Division and the technical project leader for ANSER's support to Project Forecast II, briefed the Board of Trustees on the study process and results.

ANSER analysts had participated in developing evaluation methods, managing the review, selecting technologies and systems to be advocated in the study results, and preparing the final 2,000-page report. ANSER also helped assess and analyze more than 1,100 concepts submitted to the study.

The Air Force formally thanked ANSER for their results. More than forty-five research staff alone contributed to the study, in addition to administrative and support staff.

The end of that tremendous effort overlapped the beginning of another one, introduced by a national tragedy. On January 28, 1986, the U.S. Space Shuttle Challenger exploded shortly after takeoff. The nation's space launch programs were consequently sent into a state of turmoil.



Having performed numerous analyses of space launch capabilities, ANSER was immediately called on to work closely with the Air Force, NASA, and Department of Defense offices to help restore the nation's space launch capability. ANSER's effort included reassessing DoD, NASA, and commercial payloads to structure a new National Mission Model and formulating a national strategy for the recovery from the accident.

The results of ANSER's work were foundational to the presentations to Secretary of Defense Caspar Weinberger and the National Security Council. Major General Donald Kutyna, Air Force Director of Space Systems and Command, Control, and Communications, praised the ANSER staff involved. The recovery plan, General Kutyna wrote to ANSER President Jack Englund, was "in large part the direct result of your staff who have contributed a great deal of the required expertise and effort."



ANSER's Lori Pecht discusses the Delta 180 vehicle.

ANSER contributed a great deal of expertise and effort to another significant space effort toward the end of 1986: the Strategic Defense Initiative (SDI) Delta 180 experiment. The experiment was described as "the most complex command and control space mission" that the United States had ever conducted to that point. The ANSER team of Andrew Muras, Phil Joyce, Elaine Sapp and Strategic Defense Kinetic Energy Division Manager Lori Pecht contributed to the mission.

They also experienced the complexity and excitement first hand. During the nearly three-hour experiment, Lori served as the launch historian at the Mission Control Center, recording events as they took place for later analysis. A Delta rocket

deployed a satellite to give sensors on the Delta's second stage a target to observe.

After maneuvering for some time, the one collecting data on the other, the two vehicles pointed toward each other and eventually collided. The intercept was designed to culminate the mission, one objective of which was to provide information for designing kinetic energy weapons that could destroy Soviet ballistic missiles before they release multiple warheads.

"We were all in Mission Control when the intercept took place," Research Aeronautical Engineer Andrew Muras said. "When news of the intercept reached us, the whole room erupted. There was so much emotion there."



Behind the ANSER Scenes

ANSER's acclaimed support for the Delta 180 experiment included the efforts of illustrator Elaine Sapp, who produced illustrations of the intercept from the observation aircraft's television transmissions. As Elaine's work demonstrated, the publications crew was unique among the support staff.

By virtue of their work in turning research products into published form, they often worked literally side by side with ANSER's research staff. The 2,000-page Project Forecast II report was an example of such collaborations. Some projects actually paired publications staff with company clients too.

By that time, ANSER's tremendous growth necessitated arranging all of the support staff into an *administration*. In 1969, at the start of ANSER's second decade, the company had counted 34 support personnel among the total of 97 staff (including corporate officers). In contrast, ANSER's original crew was 25 researchers and 10 support personnel. The support crew of 1969 included illustrators, librarians, editors, security, and administrative assistants.

Facilities and computer resources were two more categories of support added to the staff by 1979, as ANSER began their third decade. The editors and illustrators were then ensconced in their own department—Publications (or "Pubs," in corporate jargon)—with their own manager plus additional staff. So it was that, in 1981, Secretary and Treasurer Jim Troutman became ANSER's first Vice President for Finance and Administration, under whom benefits, contracts, finances, publications, human resources (which included facilities, personnel, and security), and the technical library were aligned.

As Elaine's work also demonstrated, the graphics effort alone could put the behind-the-scenes work of the support staff front and center. By 1987, ANSER had four technical illustrators (*right*) who had designed prominent logos for various military service programs. Jack Butler, one of that illustrator four, designed the logo for the research and development program originally known as the Advanced Tactical Fighter—what would later become the F-22. Jack



would also go on to design the logo for the Joint Advanced Strike Technology program, later known as the Joint Strike Fighter.

The Strategic Defense Initiative Organization (SDIO), air defense, and chemical biological defense were other programs that called for the ANSER graphical touch, drawing in elements from military hardware to Greek figures to perfect an illustration for the message it was intended to communicate.



The ANSER leadership soon noted the energetic boom that was occurring in the publications division. The workload had tripled in a year, due primarily to ANSER support

of a vugraph library for the SDIO. (Until the computer age supplanted them, vugraphs were ubiquitous in government and military presentations. These cardboard-framed plastic transparencies with information printed on them were displayed via overhead projector. The best quality transparencies were made photographically in a darkroom from camera-ready artwork.) Publications was producing an average of 1,000 vugraphs a month for several months, bringing the SDIO library to approximately 10,000 vugraphs at that time.



Ruth Fishback and Elaine Sapp at the vugraph grindstone in the 1970s.

The required camera products exceeded the capabilities of ANSER's equipment—equipment that was already sustaining 24 hours a day operations. So the publications crew expanded their "movie-making" ranks, adding a new camera, an auxiliary darkroom, and a darkroom technician. They also added consultant illustrators and editors in the evening to support the regular crew in meeting this new high demand.

Their efforts, in collaboration with the research staff, reached the president of the United States. For an SDIO-related briefing given to the secretary of defense, who in turn gave the same briefing to the president, publications crew members Ron Ohs, Horace Green, and seven others were named in the accolades for their contribution to the effort, which included working "all hours of the night" to complete the briefing.

It was another example of the sharp, quality people behind ANSER, making ANSER what it was.

A Tale of Two Charlies

Two more of those integral people made particular marks on the company during this time. Their successive stories showcase the rich, fascinating backgrounds that people have brought—and continue to bring—to Analytic Services Inc. (ANSER).

Projects related to chemical incidents (that is, chemical-biological *warfare* and *defense*) were not new to ANSER. One of the first projects that the company ever undertook was "Potential Biological and Chemical Warfare Systems for Tactical Combat Situations." It was for such studies that *chemists* were among the ranks of ANSER's original staff.



Charlie Wurm, a member of ANSER's Tactical Division in the 1980s, was one chemist in this lineage. He came to ANSER from the Army, where he spent over twenty years in the Chemical Corps and Military Intelligence. He obtained a Bachelor's in Chemistry from Saint Peters College in 1963 and, a decade later, a Master's in Management from the University of Arkansas. He joined ANSER in January 1987, where he immediately distinguished himself in an air-to-air missile project.

Similar airborne-weapons studies were a part of another great "Charlie" on the ANSER staff that year. A World War II veteran, Charlie Mott came to ANSER in 1963 (the year

Charlie Wurm was graduating from Saint Peters College), except his was not your average "WWII" story. A dive bomber pilot who signed on to be one of the legendary "Flying Tigers" of General Chennault, Charlie was shot down over Thailand in 1942 and spent six months as a prisoner of war in Bangkok.

Those military experiences infused the professionalism he brought to ANSER, where he worked such projects as the planning package for the aircraft that became the F-16 fighter. He also led a project team in a plan for air-to-surface guided weapons.



Charlie Mott

By 1987, Charlie Mott (*right*) had just officially retired from (and began as a consultant for) ANSER when Charlie Wurm was starting to take on studies involving a different kind of airborne guided weapon.

Charlie Wurm studied Advanced Medium Range Air-to-Air Missile (AMRAAM) technology security, helping solve policy and technical issues for the United States as it developed that missile. Other NATO nations were developing a similar missile that, in concept, posed launch implications for U.S. tactical aircraft carrying the AMRAAM.

The impact of Charlie's work, along with Tactical Division colleague Spence Mallder, on the AMRAAM study was captured in a letter from Air Force Major General Loh to ANSER: "In March [1987] in a very brief period of two weeks, Charlie Wurm and Spence Mallder did what the Air Force had not achieved in six years. They produced a highly creditable draft…plan for protection of sensitive or critical technology to be transferred for European production of the [AMRAAM]."

Another opportunity to shine in the eyes of senior U.S. military leadership came for Charlie as a result of an ad hoc panel convened by the under secretary of the Army in 1987. The panel was convened to reexamine the facts surrounding the inadvertent release of a nerve agent from the Army's Chemical Agent Munition Disposal System (CAMDS) facility at Tooele, Utah.



The Army's initial investigation had concentrated on the technical aspects of *what* happened. The Army Secretariat determined that this first look was incomplete and directed a follow-up assessment. This assessment would, among other things, determine *how* and *why* the incident occurred. ANSER was asked to provide technical assistance and to participate actively in the panel's deliberations. The Army later released the results of the investigation and implemented the panel's recommendations.

The Army also formally lauded Charlie. In a letter to ANSER's president, Under Secretary of Army James Ambrose wrote, "Mr. Wurm probed deeply into the area of management and identified a number of systematic problem areas that must be and will now be further addressed at the highest level in the Department of the Army."

The letter was also notable for its praise of ANSER entire: The "successful completion of this task has clearly been in keeping with ANSER's commitment to service in the national interest."

Special Operations

"The successful completion of this task has clearly been in keeping with ANSER's commitment to service in the national interest." Another monumental opportunity to serve the Nation's interests in a whole new way for Analytic Services Inc. (ANSER) appeared in the late 1980s. In 1987, the U.S. Special Operations Command (USSOCOM) opened its doors at MacDill Air Force Base in Tampa, Florida, to pursue a congressionally-mandated mission. The

USSOCOM soon discovered that it did not have the institutional capability to undertake the analyses required by its unique mission. They turned to a company whose good credentials had preceded it: Analytic Services (ANSER).

Initially, most of the work was done by two ANSER analysts, George Thompson and Andy Harris, who traveled back and forth between Tampa and Arlington, spending most of their time in the latter (i.e., ANSER headquarters).

The command provided ANSER with two desks in a former Strategic Air Command alert facility buried halfway underground at one end of the MacDill runway. Nicknamed the "mole hole," the facility came with a constant reminder of its proximity to the runway: all conversation would cease when an F-16 took off.

How ANSER got into the "mole hole" and what happened after that is a story that has its own *backstory*.



One day during George Thompson's work in the Pentagon in the mid-1980s, he caught word of a massive special operations study that the Air Force was mounting at Scott Air Force Base, where they would "hash out" the entire mission area in several sessions. George offered to his then Air Force boss, "I don't know what I'd do but I'd be glad to go along and help." The Pentagon boss agreed, adding, "I don't exactly know what we need you to do either, but you're welcome to come."

As it turned out, Mr. Thompson would recall years later, he was the only one taking notes and capturing the ideas at that conference in a way that, as he put it, "presents trade-offs among the different ideas." In other words, he became what was probably the only "integrated" corporate memory of that special operations conference. When the Air Force was later approached about special operations-specific developments that obviously had their roots in that mission session at Scott Air Force Base, the Air Force pointed them to George Thompson.

That was how ANSER's involvement with special operations began, and it grew—"mole hole" and all—from there.

ANSER's first work for the USSOCOM supported a vast, complex analysis called the Joint Mission Analysis (JMA). George and Andy (and, soon, a handful of other analysts appointed to the task) helped the command identify and prioritize mission requirements in time to influence its first budget submission.

The complete analysis to be undertaken for the JMA was a much bigger task: to look at how USSOCOM's forces could work closely with what were then the five U.S. regional unified commands (Southern, Pacific, etc.). The JMA team used major regional conflict scenarios to discern how special operations might be applied for objectives or events resulting from those scenarios.

The complete analysis would take approximately two years.

When the first analysis began in early 1989, ANSER realized that the job required full-time people in Tampa. They hired more research staff to work in the mole hole, to support USSOCOM daily. ANSER also created a Special Warfare Division to focus on the USSOCOM work. Dr. Carlos Mariño, a physicist-professor who had joined ANSER's health systems division in 1977 and advanced through various leadership positions to become the vice president for general purpose systems, was the acting manager of the new division. George Thompson was named the division's "area leader" for special operations.



By mid-1989, when the ANSER Tampa team began the second analysis (for the Pacific Command), seven full-time people comprised the office. Later, when ANSER began planning for permanent office space near MacDill (*right*), the USSOCOM set up four trailers near the mole hole and offered to let ANSER use one.



The ANSER Tampa office finally settled, and really started to sprint in their work, in 1990.

Temporary office space initially set up off-base gave way to the first permanent office. In late 1990, ANSER's USSOCOM team began the end of the first cycle of analyses on the JMA, simultaneously tackling the analyses of the three remaining unified commands.

There was a sense among the ANSER Tampa team that their work would never be done. It was a notion both optimistic and realistic. The United States' role in the world was not static, because world situations were always in flux, shifting priorities and changing technology. Subjects like *counterproliferation* and *regional security* would always be relevant. ANSER, in turn, would continue striving to remain relevant in their work for the nation's interests.

The ANSER Tampa team would embody that relevance into the twenty-first century. By late 1991, the Tampa office would grow to twenty-two full-time employees and involve an additional handful of ANSER analysts in Arlington. New SOCOM projects would translate into new ANSER work, such as the maritime-mission modeling and simulation project that one team from the Tampa office completed, to SOCOM accolades, in 1994. By 2000, a new iteration of the ANSER Tampa office would appear, supporting SOCOM acquisition and logistics.

By 2001, the phrase "war on terror" would connect ANSER and Special Operations yet again.



Dubit

1990-1999

"The Cold War is over—we won (ANSER helped)." It could have been a bumper sticker, this profound thought captured in the minutes of a mid-1990s' meeting

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of Analytic Services' Board of Trustees. Except the ramifications behind that thought were more than a passing observation.

This company that originated at the time of the onset of the Cold War was now present at the end of that war, and the government-military climate was only beginning to adjust to that profound change. That was Analytic Services in the 1990s.

But that tells only one part of the story. Standing back from the entire story now, one sees how the other part of the story for ANSER in the 1990s borrows equally from the earliest parts of the company's story—from the 1950s on—to tell what the company did and what it encountered at the end of the twentieth century.

From the 1950s...the attention to core work that is done well—that stands out.



From the 1960s...the attention from would-be sponsors outside the core work, as that work accorded ANSER prestige.

From the 1970s... the reach for challenging things outside the scope of that core work—without sacrificing the people and the performance of that core work.

From the 1980s...the push to diversify that core work—maintaining the company's original mission and values while reshaping the company's identity for a "whole new world."

In the mid-1970s, that "whole new world" for ANSER was their release from the "Air Force only" contract status, and their subsequent step, as a newly independent identity, out into the wider contract world.

In the mid-1990s, that "whole new world" was a world without the war-tinged threat of the U.S.S.R. always looming on the horizon. Indeed, the United States was now reaching out to the former U.S.S.R. in unprecedented ways, and ANSER was in the middle.

The United States' concerns with war—that is, the nation's attention to its security and safety—did not abate though. By the 1990s, the flames of a different kind of war were flickering up on U.S. territory, in most unexpected places: Khobar Towers, the World Trade Center, Oklahoma City. Reports analyzing this new kind of war began calling attention to phrases like "homeland defense" and to needs like an "Americas Command."

Before the decade ended, ANSER would heed that attention—and, unknowingly (at the time), heed the call of its future....



The Gulf War

The beginning of the 1990s featured yet another national challenge that ended up featuring Analytic Services Inc. (ANSER).

On 2 August 1990, Iraq invaded Kuwait. Less than a week later, U.S. fighter planes were in Saudi Arabia after their king requested military assistance. Operation Desert Shield, a massive U.S. force buildup of preparations for a possible major war, soon followed. With some relatively small studies related to what was happening in Southwest Asia, ANSER bolstered the Air Force efforts. For example, ANSER developed Graduated Mobilization Response checklists for the Air Force, the briefing for which included a consolidated list of surge preparatory actions. Copies of the draft plan were circulated in the Pentagon.

The potential war posed a certain threat that stimulated ANSER to other analytical support for the Air Force in the fall of 1990. For some time, ANSER had been staying cognizant of the threat of chemical and biological weapons. "With the spread of technology becoming ever more rapid," went the abstract for one ANSER briefing on the subject, "it has only been a matter of time before a nation with limited assets but the desire for a 'poor man's weapon of mass destruction' turned to biological and chemical warfare."

To build the Air Force's knowledge base on what ANSER called this "relatively obscure aspect of modern warfare," ANSER initiated an informal series of instructional briefings for selected members of the Air Staff. ANSER also presented the tutorials to some members of the Office of the Assistant Secretary of Defense for Special Operations/Low Intensity Conflict (OASD(SO/LIC)), the Department of Defense office responsible for countering foreign terrorism.



Also, during the buildup phase of Operation Desert Shield (*left*) and continuing through the operation that followed—Operation Desert Storm, from January to March 1991—the U.S. military made a concerted effort to conduct extensive realistic training exercises using the deployed forces. The Air Force initiated the Rapid Response Process (RRP) to

speed up the acquisition of equipment to fulfill urgent combat requirements related to that training.

For projects inducted into the RRP effort, ANSER directly supported the activities of two decision-making authorities related to those projects: the Special Action Team (SAT) and



General Officer Steering Committee (GOSC), who reviewed candidate RRP projects prior to presenting them to the Vice Chief of Staff for implementation approval.

ANSER also helped the Air Staff evaluate a major new system, the development of which was being expedited to operational status so that it could be used for the impending war. The Joint STARS, an advanced airborne radar system for supporting attacks on ground targets, was given its first operational field demonstration, and ANSER assisted the Air Staff in evaluating the results. Those results became the foundation for the JSTARS' operation in Desert Storm, where the radar-equipped Boeing 707 flew more than 500 combat hours and drew praise for its unique ability to track mobile Iraqi forces.

ANSER's biggest and perhaps most influential effort for the Gulf War actually occurred after

the war ended in early March 1991. By late summer, after the Air Staff, the Air Force Office of History, and other agencies had conducted various research projects on the Gulf War, Secretary of the Air Force Donald Rice stated that he desired a more ambitious and inclusive survey and study of the war. The result was the Gulf War Air Power Survey (GWAPS) (*right*).

The GWAPS group would, Secretary Rice directed, proceed in a "careful and meticulous fashion" and do so "according to the highest standards of professionalism and intellectual integrity and objectivity." The GWAPS group soon concluded that a contractor with expertise fitting every aspect of the survey (operations,



tactics, and command and control) should participate. The GWAPS group contacted ANSER in late August 1991 to see if they could support such an activity—in all of its myriad requirements—on short notice. On September 3, 1991, ANSER was awarded the contract.

ANSER immediately assigned personnel to assist on the seven task forces for the study. Aron Pinker was assigned to Task Force I, *Chronology and Statistics*. Frank Cartwright was assigned to Task Force III, *Logistics, Support and Space*. Steve Orton, a Vietnam veteran and former intelligence officer who attended MIT and came to ANSER after twenty years in the Air Force, was assigned to Task Force VI, *Operations and Effects*.

ANSER also formed a Research Services Support Section—what became the single greatest repository of Air Force data and records involving the Gulf War—which included Marguerite Gibson and J.D. Chandler. At the height of the study activity, some twenty ANSER personnel were assigned to the project. The final draft of the GWAPS was ceremonially presented to the Secretary of the Air Force on January 14, 1993.

By the time that final volume was delivered, ANSER's second president, Mr. Jack Englund—a famed reader of many ANSER documents before they went out the door—would not have



a chance to read it from his position at the helm of the company. By then, he had stepped down from the ANSER presidency—and over to the Board of Trustees.

"The Rest Is Up To You"

That was the closing line of Analytic Services (ANSER) President Jack Englund's final message for the "From the President" column in the corporate newsletter *Transmissions* for October/November 1991. On November 2, 1991, Mr. Englund retired from his position as ANSER's second president and chief executive officer.

"You have the challenge to continue ANSER's work and improve it," went the start of his closing paragraph in that column—an unexpectedly heartfelt column in which he urged the ANSER staff to "hold dear" what it was about each of them that had formed the basis for ANSER's amazing growth. The people, in other words, were the reason that ANSER was *ANSER*.

The staff were continuing and improving ANSER's work, Mr. Englund further noted in the closing paragraph, "with decreasing resources." Although he had expounded on it earlier in the column, that decrease deserved re-emphasizing because all things defense had, once again, begun changing recently—in a big way. *Big* not just because the defense budget was shrinking yet again, but because the entire U.S. military establishment was beginning to change in the context of international change.

Less than two years earlier, the Berlin Wall had come down. Less than two months before Jack's November adieu as ANSER's president, a coup was launched in Russia to remove Mikhail Gorbachev from power. Before the end of 1991, Gorbachev resigned and, the day after his resignation, the Soviet Union was dissolved. The Cold War was over. Although the war did not officially end until after the time in which Jack was writing, the effects of the waning war were already being felt throughout the defense world.

The implications for defense-related firms such as ANSER were profound. The corporate leadership would note the following year, "The Cold War is over—we won (ANSER helped)." There wasn't a cocktail party, as then Chairman of the Board Bob Oliver would later put it, "but there was the feeling, *What do we do now?*" In the wake of that practical question came even bigger questions like *How does ANSER fit in?* Maintaining the status quo, the ANSER leadership concluded, was not an option in this new business environment.

Bucking the status quo, nevertheless, they would remain themselves. Fundamental values make changes in culture possible while conserving the company's identity, Dr. Oliver would go on to say, reflecting years later on this second era of major transition for Analytic Services.



"Don't get into a position where you can't advise your client *objectively*. Second, separate the problem from its political environment—so you can get a clear look at the problem. [And] third, recommend a solution for that problem that can go into that environment."

ANSER was in an excellent position to adapt to this new environment, Mr. Englund further noted as he retired in late 1991. "You have strong and experienced leadership," Mr. Englund wrote in the closing paragraph of that *Transmissions* column, "a solid contract base, and an organization that is in excellent financial condition. The rest is up to you."

The care that Mr. Englund had taken during his years to maintain the quality of ANSER's work was illuminated anecdotally in that same late 1991 issue of *Transmissions*. When he first became ANSER's president, Jack continued to review all the products going out ANSER's door. It was a standing joke among the staff that one could pick up a report with a magnet after Jack had reviewed it, because he would insert a paper clip on every page where he found a mistake. (And no matter how many people had already reviewed the report, he could always find a correction.) In the early 1980s, ANSER staff presented him with a giant paper clip mounted on a plaque, in recognition of his role as premier quality control expert.



Dr. John Fabian

Not long before Mr. Englund was elected to succeed ANSER's first president, Dr. Stan Lawwill, in 1981, Jack was named executive vice president. The same progression happened with Jack's successor, Dr. John Fabian (*left*). Elected in 1990 to be ANSER's executive vice president, Dr. Fabian became ANSER's third president and chief executive officer on November 3, 1991.

"I see this transition," Dr. Fabian commented, as quoted in the October/November 1991 *Transmissions*, "as a change in coaches who may have slightly different styles of management, but the goals of the company will remain the same."

The world had changed too, with the end of the Cold War, and with that came a different defense focus—shrinking defense budgets, for one thing—which meant a declining market for a lot

of the work that companies such as Analytic Services had become prolific at. Such change would indeed require a different style of management.

ANSER leadership had seen that potentiality in former U.S. astronaut John Fabian. In the early 1990s, the United States was still pursuing space as a big part of the nation's future, which the work of the National Space Council attested to—and ANSER continued to support. For that and other over-the-horizon aims, ANSER's leadership saw in Dr. Fabian the new leadership that it would take to move ANSER further up and on. A KC-135 pilot who flew 90 combat missions in Vietnam, John earned a Ph.D in Aeronautics and Astronautics, and taught at the Air Force Academy before moving into the U.S. astronaut program. He



was a crew member aboard both Challenger and Discovery space shuttle missions.

John Fabian brought those stellar experiences to ANSER in 1987, he later noted, because of Jack Englund—specifically because of Jack's insight into what John might do for the ANSER team simply by being himself. "I don't care if you ever bring me a nickel of business," Dr. Fabian would later recall Mr. Englund saying to him, in the conversation that would turn John's sights on Analytic



Services. Underlying Mr. Englund's admonition were two key aspects of the Analytic Services culture, the first of which was *people*...bright, quality people at the heart of the corporation.

The other aspect of Analytic Services' culture coming through Mr. Englund's invitation was the primary attention to work for the public interest—the attention to the bottom line being second to that. "Obviously we have to have a bottom line that allows us to continue to exist," Dr. Carlos Mariño would later reflect on this phenomenal part of the Analytic Services culture. "But that was not the focus."

Dr. Mariño was referring to the perspective of the corporate board, a perspective that, he and others in the leadership have noted, has always permeated the management too. "Their main focus, really, is the health of the corporation from the point of view of what is the work that we're doing, what is the impact of the work...how could we have greater impact, what kinds of work should we be taking on and not taking on."

Coupled with that, Dr. Mariño further noted of this leadership philosophy setting the tone for Analytic Services' culture, "The focus has always been the quality of our staff...what can the leadership do to promote its staff and their growth.... We're in a business where the main resource is people's intellectual capacity. So we nurture that." Dr. Mariño himself would soon become a driving force in further developing these aspects of the corporation, these differences that set it apart.

That differentiator in Analytic Services—a leadership focus on quality people and quality work all aimed exclusively at national interests (and nothing but that)—was what Dr. Fabian heard in Mr. Englund's invitation that day in the late 1980s. "You just don't hear that in the defense companies," Dr. Fabian said, finishing his reflection on the conversation that drew him to ANSER.

Joining in 1987 and becoming the vice president for space systems, Dr. Fabian was soon on a path directed by the corporate leadership to become the one who would lead Analytic Services in carrying further that banner, *We're in this business to do some good for the country*. Dr. Fabian would later reflect on the translation of that philosophy into marketing the identity of the company: "We wanted to be known as a 'public service research institute,'"



he said, "with strong emphasis first on the 'public service' and, second, on the 'research." *Identity*, in other words, preceded *work*.

We're in a business where the main resource is people's intellectual capacity. So we nurture that.

Maintaining that corporate identity while translating that identity into this whole new post-Cold War world was Dr. Fabian's primary challenge, and he hit it head-on. After becoming ANSER's president in late 1991, Dr. Fabian

wrote in the *Transmissions* newsletter, "The future will be based on our corporate past. We are blessed with a reputation for corporate integrity, excellent and timely products, close interaction with our clients, and service in the national interest." Noting the dramatically changing environment—both the national and the international—he wrote further that the process of reevaluating ANSER's business practices, to adapt to that new environment, had already begun.

Part of adapting to that new environment was to take the corporation that, as Dr. Fabian would later recall, had become known as "the quiet company" and start speaking up about itself. The anonymity that ANSER cultivated in its early decades—keeping its head down, work for its clients, letting new work come find *them* rather than ANSER going out to find new work—was no longer as effective as a way to survive, much less thrive. The environment was competition, the competition was for contracts, and any contract could be lost.

So ANSER would have to go out and "beat the bushes" to find new work as well as to hold up its name in the work that it had been doing.

In Virginia, Into California, Over to Russia

Finding new work while holding up the Analytic Services Inc. (ANSER) name made for a historic year in 1992.

Internal developments were a part of that. This was the year that the Quick Cash Awards program was started, whereby \$100 would be given to a staff member (or \$50 to each member of a team) who goes "above and beyond" the daily requirements of his or her job, consistent with ANSER's mission, vision, and values.

This was also the year that ANSER conducted its first staff survey. Based on the Federal Express survey, the ANSER survey provided useful insights into staff, management, and operations. The survey would continue for years to come, and various other surveys—of the kind where ANSER's clients provide input on ANSER's work—would also be developed.



The year 1992 also marked ANSER's entrance into the World Wide Web with the network address www.ANSER.org.

Significant as they were, however, those developments stand in the background behind three major developments in ANSER's big picture for 1992. Each development expanded the company's new work and, in turn, the company's geography.

First, ANSER won a contract that led to a de facto field office in Los Angeles, California, to provide Systems Engineering and Technical Assistance (SETA) to the Interceptor Technology Directorate of the Strategic Defense Initiative Organization (SDIO). Three ANSER staff operated a field office out of the Phillips Lab (*right*) at Edwards Air Force Base to perform the support.





ANSER also opened a field office in Newport News (*left*), Virginia, in 1992, to support a different kind of work at another Air Force base. Two ANSER employees, Bill Thomas and Ivan Tominack, were "in on the ground floor" of the new Air Combat Command, formed that year from the Tactical Air Command at Langley Air Force Base, Virginia, and the Strategic Air Command at Offutt Air Force Base, Nebraska.

The seeds for this requirements-related work had actually been planted in November 1991, when Bill Thomas began supporting the Air Base Operability (ABO) Program Office in the Requirements Directorate of the Tactical Air Command. ANSER had been supporting the ABO Program in the Pentagon. The new Langley Air Force Base work not only continued but expanded that effort when the Air Staff transferred responsibility for the program to the Tactical Air Command.

Continuation and expansion on a whole new magnitude applied to another area of ongoing ANSER work in 1992. ANSER analysts had become so proficient at tracking space development activities in other countries (more than 45 countries were on ANSER's scope at that time), ANSER was becoming a "one-stop shop" for information about international space capabilities. And while the bulk of the work was related to peaceful programs, the analyses fostered studies on the potential military aspects of international space programs.

The notion that a developing country might use their space infrastructures as a guise for developing missile systems was not consigned to the realm of science fiction.



U.S. government and military agencies with space interests noticed ANSER's focus on Russian space activities. NASA, the Department of Energy, and even the intelligence community were among those who showed interest in ANSER's knowledge of, and access to, Russian space officials and organizations. In the spring of 1992, ANSER won a contract with NASA to develop a data base for evaluating the Russian space program and its possible contributions to U.S. space efforts.

Analytic Services' step into *civil* (vice military) space with NASA was a new precedent for both entities. It was a difficult transition, as Dr. Fabian later recalled. "At one point we were told, 'You're an Air Force "captive" here; we don't know if we want you on this.' The military interest in space, and the NASA interest in space...we were stuck in the middle."

The way in with NASA came about because of two things. First was the support to the Vice President's Space Policy Advisory Board, which began in early 1992. That work came about because of pro bono work that ANSER had done for the National Space Council the year before.

The other ANSER effort that opened the NASA door for them was ANSER's groundbreaking work—paid for initially with ANSER's own assets (i.e., another pro bono effort)—in Soviet space activities. ANSER had been studying international players in the space arena, but the primary focus was on the Soviet space program. Since 1987, when he first came to ANSER, Dr. Fabian had been privy to some Russian space activities by traveling to visit cosmonauts and see those activities first-hand. The relationship began with an invitation to join the Russians for their 30th anniversary of the Sputnik launch.

It was an ironic development: The launch of the Russian satellite, which began the "space race" in which Analytic Services was created, would launch another monumental beginning in ANSER thirty years later. For the Russian link that led Dr. Fabian to foster the Analytic Services approach to international space activities, to see how the corporation might be the bridge between U.S. and Russian space technology, systems, and processes, would later lead ANSER to consider opening an office in Moscow.

In mid-1992, ANSER germinated that idea into a reality with "ANSER-ites" Bill Land and

Don Blersch conducting a ten-day fact-finding trip to Moscow. They met with Russian space officials and saw various kinds of Russian aerospace hardware, including the manned lunar vehicle from the Russians' aborted moon program.

By the fall of that year, Royce Dalby, from ANSER's Space Systems Division, was in Moscow setting up the company's first international office.





The establishment presented another, bigger first: ANSER was the first U.S. defense firm to set up such an office in Russia.

There were even more firsts to come as a result of the Moscow office.

ANSER as Mentor to Protégé(s)

In the closing days of the 102nd Congress (1991–1992), legislation was enacted that established the Mentor-Protégé Program, designed to foster subcontracting opportunities with small disadvantaged businesses in the defense arena. Seventy-four such protégé firms were initially selected.

Larger businesses would mentor one or more of the protégés, and for such investments the companies would receive some incentives—such as reimbursement of costs associated with creating developmental assistance programs tailored to protégé firm requirements. Forty-six mentor companies were initially selected.

In the spring of 1993, the Department of Defense (DoD) solicited Analytic Services (ANSER) to be one of those forty-six mentors. ANSER agreed, submitted a proposal, and was selected. When ANSER began the three-year program, it was a cooperative agreement different from any other that ANSER had entered before.

ANSER's initial agreement was with two proteges: H.J. Ford Associates, Inc., and Vail Research and Technology Cooperation. H.J. Ford was an information systems and engineering services company. With similar areas of expertise, Vail also dealt in logistics support and modeling and simulation. Both firms were founded in the early 1980s; both were roughly one-third the size of ANSER.



ANSER would assist the protégé firms with enhancing business development and improving administrative functions, as well as training their personnel in areas that the firms identified as needing help (e.g., security). Participating in this unique program was viewed as a step in the direction of ANSER's vision.

The corporate leadership anticipated more diversification and new growth through work with the protégé firms—work in areas where neither the mentor nor the protégé would have had an advantage had they been working individually. A company such as ANSER would enhance the capabilities of a company such as Vail to participate in the DoD and commercial marketplace. More work for the Vails was the intended result; concomitant to that was more work for the ANSERs too. Less than ten months after the



cooperative agreement began, ANSER was counting new business among its many efforts thanks to mentor-protégé collaborations.

Through the course of the program, ANSER would access such various programs as the Ballistic Missile Defense Organization (BMDO, successor to the SDIO program), the Advanced Research Projects Agency (ARPA), and government laboratory projects. By the time ANSER's effort in the program ended in 1999, the company had experienced real growth from the work.

And they stood out in doing it. ANSER was the only not-for-profit organization among the mentor firms in the DoD program as of 1994. The following year, the DoD picked only *five* of the forty-six mentor companies to continue receiving additional funds for their cooperative agreements. ANSER was one of them.

The program's potential to take ANSER in new directions became one of the lenses through which the corporate leadership looked to see what lay over the horizon. In August of 1994, one year after ANSER started in the Mentor-Protégé Program, the corporate leadership would herald the program as one of ANSER's five "new direction initiatives."

Another one of those initiatives was centered in the toehold that Analytic Services had gained in Russia two years earlier and had been growing since—one international step at a time.

The Center for International Aerospace Cooperation (CIAC)

Toward the end of 1994, Analytic Services (ANSER) published its one-hundredth Moscow Office report, highlighting the office's many activities since ANSER opened that international door at the beginning of the decade.

Russian aerospace experts had joined, and others were continuing to join, the ANSER-Moscow team. The team periodically rotated a score of ANSER personnel (*right*) such as George Tahu, Debra Facktor, and Steve Hopkins from Arlington to Russia and back again for diverse tasks. NASA was tapping ANSER for support related to work with Russia, and more such work was on the horizon.

In late 1994, ANSER took a step—more than a small step, it was one giant leap—to establish a base for this international aerospace work



ANSER-Moscow staff (left to right) Natasha Ivanova, Royce Dalby, George Rykov, Natasha Merkelova, Brett Alexander, and Andrei Polyakov.



and facilitate more of its growth. The name of that leap was the Center for International Aerospace Cooperation (CIAC).

In the words of its first director, Dick Kohrs, ANSER established the CIAC to "serve as a catalyst to advance the development and operation of international aviation and space systems." Through cooperative agreements, ANSER and the U.S. government would form partnerships to advance the development and operation of aerospace systems, and conduct scientific and engineering research involving international cooperation.

A mechanical engineering graduate of Washington University (St. Louis, Missouri), Dick Kohrs brought a "deep space" background to the helm of the CIAC. He was involved in the development of the Apollo spacecraft and the Space Shuttle. For five years he was the director of the Space Station Freedom at NASA Headquarters.

Around the same time that Dick Kohrs joined ANSER in the fall of 1994, another mechanical engineering graduate (this one from Texas A&M) with a deep space background joined ANSER to foster the CIAC vision—from the Board of Trustees, that is. Aaron Cohen, who had held leadership positions in both Apollo spacecraft and Space Shuttle



CIAC-Moscow team members (left to right) George Tahu, Kirill Simon, Debra Faktor, Dan van Hulle, and Bill Geiger at the Moscow Aviation Institute's space and rocket laboratory.

development, became not only an ANSER trustee but also the chairman of the Board of Advisors that would govern the CIAC. Government, industry, and academia were the realms from which ANSER drew the other members of the CIAC Board to direct CIAC activities.

Like the Moscow office, the CIAC was a monumental first for ANSER. Established as a not-for-profit operating unit of ANSER, the CIAC was a separate cost center, which gave it the flexibility to operate internationally—and to operate *independently*, business-wise, of ANSER. The operating unit status of the CIAC would insulate the rest of ANSER from any conflicts of interest or potential risks associated with global business.

The corporate leadership anticipated that this separate-cost-center move would serve as a pathfinder for future areas of ANSER growth and expansion.

The demand for the CIAC already existed at NASA, where ANSER (through the CIAC) was soon fulfilling an urgent requirement to assist the International Space Station Alpha Program. Initial CIAC offices were in Arlington (collocated with ANSER) and Moscow. It was expected that, as international needs and programs arose, the CIAC would establish other offices around the world.



It was an exciting time. For the first time, ANSER cracked the list of the top 100 largest organizations serving the Department of Defense. Thousands attended more than 480 conferences in the ANSER conference center in 2004. The Excellence Award—given to both individuals and teams for work befitting the core value in the name of the award—was also created that year. Full of energy to build a bridge between the United States and the Soviet Union for technology and research, the CIAC was another part of that exciting era in the ANSER life.

It was both a product of that time, and a reflection of that time.

Pronounced intentionally like the word *kayak*, the CIAC was intended to be a highly-maneuverable thing in fast waters—a fitting analogy for the dynamic government-military environment of the time in which ANSER created the center. *Diversify* was an even bigger buzz word for ANSER than it was in 1976, when the company was first thrust into the competitive world, for that world had become, by the 1990s, far more crowded and turbulent than it was in the 1970s.

"We must change." There were highs: ANSER won a piece of work in 1994 called the Joint Advanced Strike Technology (JAST), what would later become

known as the Joint Strike Fighter. There were lows: The new work for FEMA begun in 1991—highly classified work involving national communications during disasters and other civil emergencies—was coming to a close in 1994, with nothing more where that came from.

The CIAC was an energetic corporate step in the direction of the *high* end of the spectrum. Taking such a step exemplified the ANSER leadership's new focus on "rejecting the conservative course," as they had discussed at the new initiatives meeting the year prior. "We must change."

What became manifest in these new initiatives, these efforts to change, was the acknowledgement across the board that "ANSER's most important assets are its people…and we must search for meaningful work for the kinds of people ANSER wants to keep." The Platt Award, created to recognize staff who write and present or publish professional papers or manuscripts, was also born in that meeting—yet another manifestation of that heart for the corporation's most important asset.

A significant portion of ANSER's assets—people and funding—were poured into the CIAC as part of ANSER's overaching *new direction* in the mid-1990s. CIAC-led activities between the United States and Russia over the coming years would bring cosmonauts to the states (often sitting down to lunch with ANSER analysts) and send CIAC members to the Ukraine and to China for space "exploration." Over the course of its first two years, the CIAC would be one of two of the "new initiatives" contributing to almost half of the company's growth. The other initiative was *counterproliferation and regional security*.



In the end, the dynamic environment in which the CIAC was opened would, by entropy in that environment, close the CIAC's doors. Before the close of the 1990s, the NASA funding for the CIAC that had been a primary source of the center's subsistence dried up, and funding *outside* of NASA was not enough to support the CIAC staff. ANSER would close both the CIAC and the Moscow office in 1999.

In one sense, the CIAC had been like ANSER when the latter first began: good people, a stellar idea, a new venture. What happened with those ventures, once up and running in the environments in which they were meant to thrive, are obviously two different stories. At their roots, however, lay more similarities than met the eyes of those observing these ventures from the outside.

An interesting allusion to those similarities would be found in one minor plan in the closing of the CIAC: the donation of the office furniture and equipment to a non-profit scientific research organization in Russia, after all was said and done. The planned act alluded (coincidentally perhaps; ironically for certain) to a provision in the Articles of Incorporation for Analytic Services.

The provision stated that, if ANSER ever went out of business, what was left would be donated to educational institutions. "Put it where more good can be done," in other words, "the kind of good for which this organization was originally created." And the people of ANSER-that-was-no-more would walk away with their heads held high, their services for the nation *done*.

When the people of ANSER walked away from the CIAC-that-was-no-more in 1999, they would do so with heads held high—for what they had done for the United States (and then some), and for what more they were planning to do next.

ANSER's (Navy) Ship Comes In

As Analytic Services (ANSER) drew closer to its fortieth year of existence, the company could look back on a history of work that had become *joint* in the broadest sense of the word. ANSER was joined with the United States, its military and government in particular, in the interest of the nation's welfare and security—in whatever shape the work for those interests might take.

If the potential work that came ANSER's way met their criteria (befitting the company's vision and well-being, requiring resources they had or could obtain, etc.), ANSER was on board. There was real discernment to the leadership's decision-making about what to take on. And in the 1990s that included taking new risks to further diversify ANSER's base of work.



That work base stretched from the defense to the "non-defense," the government to the "non-government." Clients ranged from the National Security Council to the National Association of People With AIDS (NAPWA). Among the array of agencies, councils, military services, departments and other organizations that had come ANSER's way over the years for support, rarely had ANSER turned one away.

Helicopter operations was one example of that rarity, which occurred in 1994. Not only would that field of work have been an unnatural extension of ANSER's business interests, the ANSER leadership determined, it "appeared to embody significant risk to ANSER." Interestingly, this conclusion came during a special meeting of the Board of Trustees, in the fall of that year, to discuss new initiatives.

"ANSER would reach for the sky but not in a manner that would detach them from their foundations."

"We need to invest in our future and take high risks," was one comment from that profound discussion. As the helicopter operations turnabout demonstrated, ANSER's newfound sense of risk-taking might have been ready to

soar, but those boosters were set to go only so high—to keep the company earthbound.

ANSER would aim for the sky but not in a manner that would detach them from their foundations.

Among their accomplishments so far, ANSER could count the highest leadership in the land—the White House—among those they had supported. As of the early 1990s though, ANSER had yet to count the U.S. Navy among them. ANSER had done studies that involved the Navy, but they had yet to work *directly for* the naval community. ANSER had long knocked, but because the Navy had long viewed ANSER as an "Air Force house," that door just hadn't opened yet.

Until 1994, when ANSER landed the Joint Advanced Strike Technology (JAST) work—a monumental breakthrough. For this truly joint (Army-Navy-Air Force-Marine) program, ANSER would work on technology maturation and design, among other things, for the JAST. It was ANSER's first work with the Navy, and the company marshaled their talent and energies for it, creating the Joint Requirements Division (JRD) that same year.

The JRD was originally designed to focus solely on the JAST work, but that work, it soon turned out, was the catalyst to far more work—*Navy* work—coming ANSER's way and right into the JRD. It was like finally getting a seat at the table of some big event then getting up and working the room. That was ANSER with the Navy in 1995.



First, ANSER discussed with the Naval Air Systems Command (NAVAIR) support for building a business communication information system for the Navy and Marine Corps headquarters branches. ANSER also briefed the Navy's submarine program office about an electronic tool for evaluating contract proposals (i.e., "source selection") that ANSER had developed for the JAST office.

Another bit of prior ANSER work, on the Lightweight ExoAtmospheric Projectile (LEAP)—a long-range hit-to-kill interceptor technology they developed for the Ballistic Missile Defense Organization (BMDO)—had earned ANSER the respect of certain Navy program managers. That led to ANSER supporting the Navy's application of LEAP to the AEGIS, a shipboard weapon system that uses powerful computers and radars to track and destroy enemy targets.

The greatest Navy work to dock in the corporate harbor that year, as ANSER saw it, was the new Surface Combatant, 21st Century (SC-21) Program Office. The SC-21 was charged with defining a ship for the twenty-first century, one that could meet multi-service requirements while employing a nearly "puncture-proof" self-defense capability against all varieties of threats in a littoral environment.

These inroads into Navy work led ANSER to one more before the year ended: they won the chance to apply their electronic tool for source selection to a ship procurement action worth billions.

The Naval Sea Systems Command (NAVSEA) was in the process of finding the best contractor to tackle the Navy's new amphibious assault ship, the Landing Platform Dock (LPD) 17. From the standpoint of electronics, the LPD 17 (*right*), it was hailed, would be the most sophisticated ship ever built. From the standpoint of capability, it would be a modern marvel of integration, replacing forty other aging, expensive, manpower-intensive ships.



The Navy tapped ANSER for their Electronic Source Selection (ESS) tool to help the NAVSEA achieve a contract award more quickly. Working in a secure facility containing twenty government-owned, networked workstations, ANSER's ESS team worked with digital reams of proposal information, arranging data (strengths and weaknesses, risk narratives, etc.) for the proposal evaluators as they needed it.

In the process, ANSER trained evaluators on the ESS tool, provided continuous on-site software and network support, and updated software regularly to meet emerging needs. The overall effort would end up going on for the better part of a year, with ANSER's ESS team members often working two shifts a day, seven days a week.



ANSER's "ship" had finally come in, and they were giving it everything they had—full speed ahead....

Rwanda: A Case Study in (ANSER) Diversification

Andy Harris, an analyst in the International Security Division of Analytic Services (ANSER), boarded a United Nations (UN) helicopter headed for Rwanda on 1 November 1995. Eighteen months had passed since, as Andy put it in his notes from the trip, Rwanda was caught in a "spasm of violence that has few rivals in modern times."

It was a fact-finding delegation that Andy was embarking on, with a small, wildly-diverse team that included a RAND analyst, a senior member of the American Bar Association who was concerned with the Rwanda War Crimes Tribunal, and a publisher of several local newspapers in Southern California. The team would spend ten days reviewing two peacekeeping operations: first, the UN Assistance Mission in Rwanda (UNAMIR), then fly to the other side of the continent to review the UN Verification Mission in Angola (UNAVEM).

ANSER had established "seed work" with the United Nations through the company's Counterproliferation and Regional Security sector that year. The distribution yielded a literal network of ANSER contact in multiple organizations: the UN Peacekeeping Organization, UN High Commission for Refugees, UN Department of Humanitarian Affairs, and the UN World Food Program, among others.

When Andy Harris visited Rwanda that November (*right*), one of the places he went was a refugee transit camp—one of the beneficiaries of the High Commission for Refugees, which ANSER was then supporting—on the Rwandan-Zairian border. Few in ANSER would ever have such passage: going to a far-off field being touched by ANSER work to actually *see* what ANSER's work was doing.

One year later, in the fall of 1996, Andy headed back to Central Africa, along with several other members



of ANSER ISD's "international team," to provide surge support to the UN Department of Humanitarian Affairs (DHA). The DHA was responsible for coordinating relief agencies in the field during humanitarian emergencies. ANSER would help coordinate and plan, as well as innovate technical support tools for, the UN efforts to mitigate the overwhelming collective of refugee emergencies happening in Rwanda, Zaire and surrounding countries.



The ISD crew, later known as ANSER's Humanitarian Assistance Planning team, ended up working non-stop in Kigali, Rwanda, to help plan support for a relief operation that saved thousands of lives. Their efforts also contributed to a more effective reintegration of the refugees into Rwanda. Early the following year, ANSER would recognize the team with an Excellence Award for the work.

Other ANSER work for the UN in 1996 included finalizing a DHA database of military and civil defense assets and associated parts for disaster management. ANSER also worked with the UN World Food Program to develop a decision-making tool for tracking the program's non-food assets.



The latter work galvanized ANSER leadership to infuse the team's efforts in late 1996 with funds from the Independent Research and Development program, to create an automated planning tool called the Humanitarian Assistance Requirements Tool (HART). The HART (*left*) would equip the disaster relief community to consistently generate measurable assessments of the severity of natural and manmade disasters. Through these assessments, they could determine water, food, sanitation, shelter, and medical aid requirements, as well as plan more efficient and effective responses.

The HART tool was soon completed and later applied successfully to UN relief activities in Rwanda.

In a year when diversification was still a high priority for ANSER, a pursuit that included such fields as information technology and international space, it is difficult to imagine how the company's work in 1996 could have gotten any more diversified than the fields of Rwanda.

Forty Years...Flying High

In 1997, a significant vehicle of work landed at the Newport News, Virginia, office of Analytic Services (ANSER): the F-22 Raptor. ANSER analyst Mark Hunter, who had been working the F-22 program for years at the Pentagon, would relocate to the Tidewater area to work for the F-22 Special Management Office (SMO). In the words of Newport News Office (now called the Tidewater Region) Manager Bill Thomas, Mark's experience and expertise "absolutely devastated" the open competition for that work.

The F-22 SMO development was new, but the roots to it were as old as ANSER itself.



The company had come a long way from its 1958 analyses of missile-bearing B-52s, but that distance was *experiential* not spatial—like moving to different parts of the same continent. The experiences are new and different but all that ground beneath the feet is still part of the same territory. ANSER's Fighters and Systems Division, formed in the early 1990s, was evidence of that.

By the mid-1990s, the Fighters and Systems Division's slate of activities read like an map of just how far ANSER had come in the world of aircraft: the F-15, F-16, Airborne Warning and Control System (AWACS), Joint Surveillance and Target Acquisition Radar System (JSTARS), and the Joint Strike Fighter. The F-22 program was also on that map and now, with the SMO development in Newport News in 1997, it was part of ANSER's geographical map too.

As with most of the aircraft work to which ANSER could lay claim, the F-22 had its own particular root in ANSER's history—one that reached back more than thirteen years. When the plane was first conceived, known simply as the Advanced Tactical Fighter (ATF) that would replace the F-15 someday, ANSER was there. The tactical mission area analysis and



planning studies that ANSER provided to the Air Force in the early 1980s germinated the ATF concept, which became a full-throttle program in 1984. When the concept became a prototype—designated the YF-22—and the prototype flights began in 1990 (*left*), ANSER was there, devoting a considerable portion of its tactical aircraft research to this next-generation aircraft.

ANSER had devoted similar portions of research over the years to a number of aircraft, several of which ANSER was able to engage in their conceptual stages. Among them were the F-15 (originally dubbed the "F-X"), the A-10 ("A-X"), and the C-17 ("C-X"). ANSER's involvement with aircraft over the years ranged from the *total* (i.e., conceptual requirements for the plane) to the *specific* (avionics, data links, etc.). Toward the close of the twentieth century, ANSER could boast of a long tally of aircraft that also included the B-1, B-2, KC-135, F-16, FA-18, and F-117.

A sample of the yield of these aircraft roots for ANSER circa 1997:

In 1995, the Secretary of Defense wrote a letter of appreciation to the Secretary of the Air Force regarding a congressionally-mandated plan on the B-2. The plan was submitted to the Congress after a thirteen-month effort by a team of people that included a handful of ANSER personnel—all of whom were named in the letter.



Later that same year, the three-star general heading up the Air Force office responsible for the acquisition of such fighters as the F-22 wrote ANSER to laud Mark Hunter as the "mastermind behind the F-22 communications plan"—a plan that, the general noted, the Air Force leaned on "innumerable times" in correspondence with Congress about the program.

In 1996, ANSER analyst Roger Hage (*right*)—also a member of the ANSER-Newport News crew serving the Air Combat Command at Langley Air Force Base, Virginia—received an Excellence Award for his work on the Fighter Configuration Plan (FICOP), a decision-making tool for identifying the "best bang for the buck" for future aircraft configurations given available budget dollars. The plan set the standard for future analyses regarding the Air Force's combat aircraft force structure. On the heels of that success, Roger was tapped to help develop the same process for bomber, combat delivery, and rescue aircraft.



In 1997, ANSER analyst Steve Johnson also won an Excellence Award for U.S. military aircraft work—except this work had an enormous international ramification. Steve was part of an Office of the Secretary of Defense (OSD) group that strove to convince the North Atlantic Treaty Organization (NATO) that the JSTARS was the answer to NATO's requirement for alliance ground surveillance.

Traditionally, only the "big powers" in NATO were consulted for such sensitive issues as this requirement. Steve pressed—and was endorsed—for a briefing team to visit *all* of the NATO countries. The move brought "many words of praise from small nations saying that Americans are doing this right for a change."

Also in 1997, ANSER's Joint Technology Division received accolades for becoming something of a non-profit publishing phenomenon that year. ANSER analysts David Aronstein, Al Piccirillo, and Mike Hirschberg had written books on several fighter aircraft development programs (including ANSER's involvement in them), all for the benefit of the JSF office—all published in 1997. One of them, entitled *Have Blue and the F-117A: Evolution of the "Stealth Fighter*," won the Aronstein-Piccirillo team the Platt Award for that year.

The next extensive case study on their writing table—and due for publishing—the following year: *The Advanced Tactical Fighter/F-22 Program*.



ANSER's Lead: Fabian to David

Of the many pictures taken at Analytic Services' (ANSER's) gala in October 1998, to celebrate the unique occasion of forty years of serving the United States, there is a most unique picture: ANSER's presidents, former and current, standing together. Dr. Stan Lawwill and Mr. Jack Englund are there with Dr. John Fabian—and Dr. Ruth David, who became ANSER's fourth president and chief executive officer that same month, concurrent with Dr. Fabian's retirement.

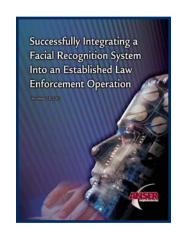
The leadership development and the corporate occasion crowned a unique year. Here are a few snapshots from it...

ANSER signed an agreement with "Legi-Slate," a legislative news service and subsidiary of the Washington Post, to jointly market ANSER's summaries of congressional hearings. The year 1998 marked ANSER's fifteenth year of legislative analysis, a track record that at one point substantially involved three divisions (the Policy and Nuclear, Advanced Analysis, and Special Warfare Divisions, in 1993).

ANSER opened an office in Fairmont, West Virginia in 1998 to support the biometrics work won, in late 1997, for the National Institute of Justice—an opportunity with roots in related ANSER work in the mid-1980s. Specifically, ANSER would help develop a "real time facial recognition" (RTFR) system (*right*) to expedite justice in two diametric forms: the capture of fugitives and the recovery of missing children.

Working with the West Virginia State Police, the ANSER team located their first missing child later that year—a case in which neither the FBI nor the National White Collar Crime Center could provide assistance. Using computer forensics and internet expertise, ANSER provided information that narrowed the police search to a town in Illinois.

ANSER's move into West Virginia was but one part of a sextet of geographical movement for the purposes of work in 1998. To start, ANSER regained the work trail for the U.S. Special Operations Command (SOCOM) in Tampa, Florida, opening another office for new work one year after they closed the



previous office when *its* work ended. ANSER also opened another counterproliferation position at Shaw Air Force Base, South Carolina and moved into Albuquerque, New Mexico to support the Air Force base (Kirtland) there—the Air Force Research Laboratory, in particular.



Rounding out this activity meanwhile were two movements on ANSER's established fronts: the Colorado Springs office relocated (from the 2nd floor to the 1st floor in their building, to accommodate their dynamic growth), as did a huge segment of the Arlington-based crew.

The latter entailed all 125 ANSER staff under the Assistant Secretary of the Air Force for Acquisition (SAF/AQ) aegis moving from the Pentagon—which meant vacating their Arlington offices—to newly acquired office space in Rosslyn, Virginia. The Pentagon renovation project occurring at that time prompted the Rosslyn move of the entire SAF/AQ office.

Facilities also won ANSER an award in 1998: the Department of Defense (DoD) James S. Cogswell Outstanding Industrial Security Achievement Award for 1997. (Award recipients weren't named until mid-1998.) This was the second time that ANSER won the award, having received the first in 1994. Of the 11,000 industrial security offices worldwide subject to the National Industrial Security Program, only 56 companies received the coveted DoD award for extraordinary performance.

ANSER's performance overall—*corporately* (i.e., as a company) and *individually* (i.e., each member of the company)—was the subject of Dr. David's study as she became ANSER's president in late 1998. A deputy director for the CIA, where she spent three years before joining ANSER, Dr. David was actually "on loan" from the Sandia National Laboratories, where she was the Director for Advanced Information Technologies.



Dr. Ruth A. David

Graduating from Stanford University twice—first for a master's then for a doctorate, both in electrical engineering—during her tenure with the laboratories, Dr. David (*left*) rose through the data systems development and testing centers at Sandia. By the time she joined the CIA, she had amassed a twenty-three year career, publishing more than twenty technical papers, coauthoring two technical reference texts, and even teaching graduate-level courses as an adjunct professor in the electrical engineering department at the University of New Mexico.

She had done a great deal for the nation when she joined this company in 1998 that had also done a great deal for the nation—for

forty years—and that sought to do more.

"ANSER is already doing a great deal," Dr. David wrote at the end of 1998, "that is consistent with [the] expectations [of all involved with the company]." It was her first "corporate perspective" column of the *Transmission* newsletter as ANSER's new president, and the expectations she referred to were those of ANSER's employees, clients, and Board of Trustees. The expectations: 1) choose the "right" work; 2) execute well; and 3) invest wisely.



It was through those expectations, she explained—and for the people behind those expectations—that she sought to grasp Analytic Services and lead it on.

All three expectations would come into play the following year when the corporate leadership chose two directions in which ANSER would strive to go. One of those strategic thrusts would have ties to certain pieces of work that ANSER landed in 1998. The title of one of those efforts indicated one of the future aims: the Joint Staff directorate for *combating terrorism*, what would soon become known as *homeland defense*.

Homeland Defense

New threats from weapons of mass destruction (WMD) would require the United States to implement a "capability of homeland defense on a scale never dreamed." That was one forecast from the U.S. Commission on National Security/21st Century (aka the Hart-Rudman Commission), which released the first of its three watershed reports in 1999.

ANSER took that forecast to corporate heart later that same year, making *homeland defense* one of two strategic thrusts for the company's near—if not indefinite—future. *Acquisition excellence* was the other strategic thrust, both tied directly to the new corporate vision that had been devised at a winter offsite and released in the spring of 1999.

The three parts of the ANSER vision (in no particular order, *below*): strengthening public institutions by improving their effectiveness and efficiency; enhancing public safety by helping our nation deal with twenty-first century threats; and protecting U.S. technological superiority by nurturing the science and technology workforce. The homeland defense strategic thrust tied directly into the second statement.

As indicated by the Hart-Rudman Commission, which was one of several major commissions and panels that addressed homeland defense in the late 1990s, this was an emerging issue of national concern. Given some of the work ANSER was then doing, homeland defense was already an emerging part of ANSER's concern. Counterproliferation and counterterrorism—issues intrinsic to homeland defense—were proficiencies that ANSER had been developing.

The company would look to certain of their current sponsors to provide experience as well as connections related to the homeland defense thrust. The Joint Chiefs of Staff Deputy Director for Combating Terrorism, for example, gave ANSER a unique homeland defense perspective. After the 1996 terrorist bombing of Khobar Towers, the issue of protecting U.S. forces from terrorist attack galvanized the Department of Defense (DoD) to create the Combating Terrorism directorate in 1997. ANSER was able to step in to support the directorate from its inception—a position that soon led them to parts of Europe and the



Middle East to collect deployed-forces data that would help the DoD evaluate its force protection practices.

Such work meant that, by 1999, ANSER already had one foot in the new arena known as homeland defense—a term introduced de facto by a 1997 National Defense Panel report on national security for the twenty-first century. Understanding exactly what the national security community meant by that term (which encompassed the term combating terrorism and would soon become juxtaposed with the term homeland security) was one of ANSER's first activities, as the company proceeded to jump with both feet into helping the nation prepare to cope with the threats of WMD.

ANSER hit the ground running even before 1999 was over. Part of the strategy was to partner with prestigious public service institutions to enhance ANSER's visibility, and to facilitate dialog on new approaches

"...the company proceeded to jump with both feet into helping the nation prepare to cope with the threats of WMD."

to enhancing U.S. homeland defense against potential catastrophic threats and incidents. Through that partnering, ANSER also sought to identify a potentially diverse client base for whom ANSER might develop analytic capabilities. The company would build toward this from their current work in the force protection/counterterrorism area.

In November of 1999, ANSER analyst Mark DeMier was selected to be the Homeland Defense Research Analyst—ANSER's first step in establishing company leadership specific to the new arena. The next step was a Homeland Defense Coordinator, a key position filled by one Sue Reingold, on loan from the National Security Agency for the ANSER role.

That role was merely interim though; the search to strategically hire someone to lead the homeland defense thrust was already underway. By the spring of the following year that search would be over. Retired Air Force Colonel Randall Larsen, then the chairman of the Department of Military Strategy and Operations at the National War College, would join ANSER in May of 2000 as the new Director of Homeland Defense.

By that time, ANSER's initial run into the homeland defense arena would turn out to be the sprint of a runner who gets quickly out of the gate then settles into a pace for the long run. ANSER would create and host homeland defense workshops designed to engage leading thinkers from government, industry, and academia in the fields of strategy, policy, and operations. ANSER's website would include a homeland defense page—accessible from the ANSER-purchased web address "HomelandDefense. org"—that would prove immediately popular as well





as enhance ANSER's reputation as a serious actor in this arena. ANSER would form a Homeland Defense Leadership Council.

These were but three of a number activities that ANSER undertook within six months of declaring *homeland defense* a corporate strategic thrust. It was a far-from-business-as-usual effort predicated on the forecast, from the likes of the Hart-Rudman Commission, that direct threats to the U.S. homeland were the paramount threat to the nation in the coming century.

Developments over the next two years would prove ANSER's embrace of that forecast to be not only right, but downright prescient.



Horizon 2000-2008

In the wake of an enormous loss...an enormous gain. The two developments were unrelated, but the corporation at the heart of the story was essentially the same: turning challenges into opportunities, focusing on the people who were the heart of the corporation, looking over the next horizon—charting a sound course to get there.

That was the story of Analytic Services as it entered yet another new corporate era.

Coincidentally, the United States itself—indeed the world entire—would enter a new era too, not long after the new millennium



began...an era defined by far more than just the new millennium.

Analytic Services would be prepared for that era. The tack of diversifying, which the leadership had been taking for a quarter of a century now, led to a major new focus toward the end of the 1990s: the defense or security of the homeland. The terrorist attacks on Americans, on American soil, in 2001 would vault that focus to the forefront of the nation's attention.



That attention would vault Analytic Services to the forefront of the discussion on that topic—for answers to homeland security questions on what to do now, as well as what to do with the future.

That future, as the Congress and the President would see it, would need a government department devoted to it. The idea of a "think tank" devoted to that department would end up reaping everything ANSER had sown in the focus on the homeland that began in the late 1990s. In fact, the development would ultimately stem from all that Analytic Services had come to be in its forty-something year life. As then Board member Alan Boyd would later reflect, Analytic Services had established such a solid reputation, that anyone unfamiliar with the corporation could be directed to any number of organizations (NASA, etc.) to hear about that sterling reputation.



That reputation would be pivotal to the homeland security "think tank" pursuit. The result—an entire new operating unit created alongside, yet distinct from, the original ANSER operating unit—would change the face of the corporation.

These changes in Analytic Services, and the work those changes would bring as the corporation neared its half-century mark,

would reveal a horizon somewhat different from the one that ANSER originally charted a course toward in 1958. By 2008, the relationship between national security and homeland security would be symbiotic—a necessity that had become a reality that looked to never change. Translating that symbiosis into Analytic Services, and doing so healthily in every possible way for the corporation, would be one of the great challenges before them as this new era progressed.

Embracing that national/homeland security reality nonetheless, Analytic Services would continue to reflect the nation's priorities—to "go wherever history takes the nation," as longtime board member Bennett Boskey put it—just as they had striven to do since they first began. That was the mission around which they had built the corporation.

That was the mission they would never look to change...



Shaken To the Core

In October of 1999, the Office of the Assistant Secretary of the Air Force for Acquisition (SAF/AQ) announced that it was considering potential approaches to fulfilling its advisory and assistance service requirements. The resulting approach was a contract competition for the engineering and program and financial analysis work supporting all SAF/AQ organizations.

That was all of the work then being performed by Analytic Services (ANSER) for SAF/AQ. The contract, dubbed the SAF Technical and Analytical Support (SAFTAS) contract, would also encompass another area of supporting work that fell under the ANSER aegis at the time: the Joint Strike Fighter Program Office, which was situated in Crystal City.

The recompetition was a profound event, for the acquisition work it entailed was the work that many had come to see as the "immutable core" of ANSER. The heritage of the SAF/AQ office traced back to the Air Force Development and Planning (AFDAP) office, ANSER's original sponsor. That made this work ANSER's heritage too. The company's worth was not the only thing at stake; the company's *identity*, it seemed, was at stake too.

ANSER had been here before and prevailed. The company had previously faced three competitions for the SAF/AQ work and won every one of them. ANSER had also firmly established itself in areas beyond Air Force acquisition since then. That diversified other work, which ANSER had been gradually accumulating since the mid-1970s, had in fact become almost as much of the core of the company as the SAF/AQ work.

The company's worth was not only at stake; the company's identity, it seemed, was at stake, too.

As ANSER's proposal team went into action, the collective feeling about ANSER's place in the competition was one of great but tempered optimism.

There was great optimism because the ANSER workforce had consistently earned stellar performance ratings from the SAF/AQ and Joint Strike Fighter offices for their considerable contributions and talents. Accolades were being added even as the proposal was being written, some of them documented in a customer survey ANSER had developed precisely for this work.

ANSER had been doing such surveys for years; the company developed its first survey in 1992, based on a Federal Express corporate survey. In 1999 ANSER created another one based specifically on a SAF/AQ survey. The majority of the ratings from those responding: ANSER was exceeding expectations.

The optimism, while great in terms of ANSER's past performance and current standing, was tempered though by the ebb and flow of the government's contracting processes. Coping



with those processes in an ever-changing world had long since become de rigueur in the life of the company. From the moment ANSER was released from its Federal Contract Research Center status in 1976—and contracted with the Air Force for the work that ANSER had previously done as the *sole source*—the company had been dealing with those fluctuations. Nearly every step of ANSER's journey was one of either preparing, adapting, or anticipating.

This was the contracting world, the sea in which the ship sailed, and it was a constant albeit unpredictable factor in ANSER's always looking over the horizon.

The horizon changed on December 18, 2000, when the SAFTAS contract decision was announced, and the award did not go to ANSER. The emotional, financial, and communal impacts converged, the perfect storm. ANSER pushed into the winds, simultaneously taking stock of its vessel and looking for the new horizon; the Board of Trustees met soon after to examine the loss and discuss its ramifications for ANSER's present and future.

In learning what happened they culled several major lessons, two of which stemmed from the identity that ANSER had carefully cultivated over the decades, that of a strictly objective non-profit organization. One lesson learned:

"...how ANSER communicated, what they offered...were now as important as who they were."

ANSER's reputation of being free from any conflict of interest no longer appeared to hold the same worth that it once did in the government's eyes. The other lesson was that ANSER's non-profit status and culture no longer appeared to hold the same worth that it once did in the eyes of many of ANSER's clients.

It wasn't that ANSER's characteristics of objectivity, excellence, relevance and impact in serving the United States were any less meritorious. The geography of the contracting world had simply become so rife with complexity and competition, that the brilliant characteristics of a company such as ANSER could no longer be relied on to act as the beacon that drew clients—and the harbor that kept them. The challenge that lay before ANSER was to navigate its solid twentieth century identity into the undulating twenty-first century, drawing clients alongside as they went.

In other words, how ANSER communicated, what they offered, and where they aimed were now as important as, if not more important than, who they were.

Reinvention had already begun for ANSER before the SAFTAS competition. When the Air Force announced the competition in 1999, only a decade had passed since the Soviet Union dissolved and the Cold War ended. In that decade, the U.S. government and military had begun to change—not unlike the time after the Vietnam War, with the defense drawdown and its effects on defense-related industry.



And just as they did in that 1970's era, ANSER began looking at how to change with national interests in the 1990s. The corporate leadership had carried the torch of that change—developing ANSER internally (e.g., ANSER U) while taking the corporation further externally (e.g., Moscow)—to light Analytic Services' way into new areas in the competitive environment. Yet that environment had become the proverbial jungle, "wild" enough that doing a good job in the eyes of a happy client might not be enough to keep that job.

That had been the sad end of the special operations work in Tampa. Ranked as a "passable" bidder alongside another "passable" corporation who was bidding on the Tampa work, ANSER witnessed this new "pass/fail" framework in the contracting process boil the whole thing down to a cost "shoot-out." The competitor underbid ANSER, ANSER lost the Tampa work, and the resulting daze—the disappointment of losing a great team and a happy client—served to reinforce ANSER's longstanding will to turn challenges into opportunities.

Only now, at the close of the twentieth century, those challenges were obviously threatening enough to shake the life of the company to its core.

Dr. David carried that same torch of change as the twentieth century ended and the new century began, and she, along with the rest of the corporate leadership, did so with sights looking even further and wider at the horizon. Except now it was not only *What can ANSER do for the nation?* but also *What is happening globally that looks to affect the nation?*

Increasing domestic terrorism was one example, and the deadly blast at Khobar Towers in Saudi Arabia in 1996—19 American servicemen killed, 370 Americans and Saudis wounded—was one example of that increase. By 1997, the words *homeland defense* appeared at the edges of the government-military lexicon, put there by such high-profile reports as the National Defense Panel's. ANSER therefore made *homeland defense* a strategic thrust in late 1999 and put a homeland defense director in place the following year.

The pursuit of homeland defense was just one way in which the company was beginning to turn four decades of work in a new direction—a turn that was occurring in a decade of profound changes in the national security arena.

The healthy dichotomy of being conservative in growth but aggressive in applying expertise to the nation's interests was the diagnostic focus of the ANSER leadership when they first met after the SAFTAS loss. ANSER's initiative, relevance, and impact, indeed its *integrity*—in short, the company's values—were in the discussion. But they were never in question.

"The horizon had changed, but the ship was still sound."

As Chairman of the Board Bob Oliver wrote to the ANSER staff after the loss, "We will not be deflected from our vision." Reiterating how the staff continued to embody that vision through



their distinguished contributions to the nation, he added: "We are looking forward and committing our energy to the future."

It was a future fraught with challenges, but ANSER's leadership saw the *opportunities* that lay in them. With homeland defense but one example of the company's newly-burgeoning capabilities, ANSER was well positioned to reinvent itself further. They would continue to be a valued contributor to the "public welfare and security of the United States." The words hearkened back to ANSER's Articles of Incorporation; the focus recalled the company's origin, and all that the company had done since.

Part of growing ANSER into a corporation with over forty successful years behind it had meant practicing such wisdom as ANSER's first president, Dr. Stan Lawwill, later recalled: "We adjusted with the changes; we didn't try to *fight* changes." Rolling with the changes, ANSER had done much and, even without the SAFTAS work, was still doing a lot.

Those "non-SAFTAS" activities were in fact a significant part of what saved the corporation. "At one time," Roberta Carlisle would later reflect, "the loss of that [i.e., the SAFTAS work] would have been the end of ANSER." It was a reflection shared by others in leadership who lived through that time. Dr. Mariño further noted that, after the SAFTAS loss, there were companies collegial to ANSER who thought it *was* the end of ANSER.

"But by the time that happened," Ms. Carlisle continued, "the company was robust enough to absorb it...and even rode beyond it." The people of ANSER—from the board and the management on down—"just dug in," Dr. Mariño added in his reflection on this time. They were "extraordinarily dedicated to the organization," and underlying that dedication, that *resilience*, was one theme:

"We as a corporation have provided an invaluable service to the nation. We have a focus on the national interest that nobody else does. We *have* to preserve that."

And preserve it, they would. It would take some time, but they would do it. The fields of diversification that ANSER had been sowing anew and reaping from for decades now would, in just two years, prove ANSER strong enough to survive the SAFTAS storm. Indeed, they would emerge from the storm stronger. "In one sense," Dr. Mariño further said, "you could look at it as, *That was probably the best thing that could have happened to us.* Because we refocused all of what we were doing. And found a new sense of purpose."

The horizon had changed, in other words, but the ship was still sound.

Heading into new landscapes on the changed horizon—and looking, all the while, for more—ANSER found hope in a somewhat unexpected place. Plans long in the making to move ANSER's headquarters to new facilities (*next page*) would come to fruition early the following year. Later, the Shirlington move would seen as a serendipitous move, as the company embarked on a voyage of reinvention and new growth.



"Though it was not originally planned as such," the Analytic Services (ANSER) leadership wrote in 2001, "the new facility and location [in Shirlington] can be viewed as providing ANSER and its staff with a physical symbol of renewal as the company embarks on an era of redefinition and growth." March 19, 2001, was ANSER's first day in the new building, a day that, for all that had come before it in recent months, was like the first day of a new year.



Shaping the new face of Analytic Services did not stop with a relocation. ANSER debuted a new tag line ($\underline{\mathbf{A}}$ dvancing $\underline{\mathbf{N}}$ ational $\underline{\mathbf{S}}$ trategies and $\underline{\mathbf{E}}$ nabling $\underline{\mathbf{R}}$ esults) that year.

Shaping the new face of Analytic Services also did not stop with that year. Related endeavors followed, as with the 2002 debut of an internal website that would connect the entire corporation. This intranet, dubbed the "AWEB," was about far more than function and aesthetic—a putting on of fashionable clothes. The AWEB was about that connection of people—an emulation of the hallways in ANSER's first building, on that Alexandria street in 1960, where everybody knew everyone's name.

A website couldn't recreate that kind of person-to-presence, but with a large portion of the Analytic Services staff now embedded in client offices (e.g., the Pentagon), the AWEB was a step in that direction. And with that embedding of staff only increasing, the AWEB was a *necessary* step.

Similar connective steps would come in later years, all of it accessible (and often punctuated by highlights) on the AWEB. One such step was the Project of the Week essay series, for bridging knowledge company-wide about who is working on what. Yet another connective step taken in 2006 was a new endeavor in the old-as-ANSER initiative to develop staff by affording them an opportunity for relevant education.

This graduate certificate program that would begin in-house would, by 2007, evolve into more than another grower of individuals and connector of staff. It would become a new horizon.

So it was that the year 2000, which signaled the beginning of a new century and a new millennium, turned out to be the launch of a "new" ANSER. Revamping the vessel, they charted a new course and got underway, taking the Analytic Services of old—the same mission but with a new focus; the same spirit but with a new energy—into shipping lanes both old and new in service to the nation.



The ANSER Institute for Homeland Security

A significant part of ANSER's emergence in this new corporate era—refocusing the corporate mission, refreshing the corporate identity—was the initial yield of the strategic thrust into homeland defense that had begun in 1999. "Due to our corporate investment and the significant efforts of personnel over the past year," ANSER leadership further wrote in 2001, "ANSER is already well-recognized as a valued contributor to the emerging debate, and business opportunities continue to emerge."

One of those "opportunities to contribute" came with the creation of the ANSER Institute for Homeland Security (AIHLS) in the spring of 2001. To do so, Analytic Services invested hundreds of thousands of dollars from its own assets—by any other name, more *pro bono* work—to support the nation even further in pursuing this critical subject. What had started out as an effective array of activities, from workshops and independent research to a nominal media presence (website, speeches, etc.), would now cohere into an institute to become not only the valued contributor to, but the *preferred provider* in homeland security for the nation.

It was a move that, in hindsight, spoke volumes about the continuing paramountcy of Analytic Services's aim to be about the business of doing good work in the nation's interest. "Here's a corporation that's just lost a very large contract," Dr. Mariño said recently, reflecting on the juxtaposition of the SAFTAS loss for ANSER and the subsequent AIHLS gain for the nation. "And instead of retrenching, the [Analytic Services] board says, *No, go ahead and invest. This [homeland security] is a national problem. Yes, nobody seems to acknowledge it right now... Invest the money.*"

The board was "not only willing to make the investment," Dr. David added to that reflection, "but [also] to sustain and grow the initial investment...[and] that saw us through. Today we're a strong corporation for that." The senior leadership's handling of these events deepened an already-deep appreciation that Dr. David had for this unique organization that could take such a hit and not just get up and keep going, but take a risk in doing it.

From steering under the dark skies of the SAFTAS loss to heading for a perceived brighter opening in those skies—still alive as a company, still doing for the nation—through the homeland security work, this leg of the journey illustrated what she saw as one of the special things about Analytic Services: "The charter gives us our latitude, and the board makes sure we exercise that latitude."

The magnitude of the investment in *homeland security* was amplified by the fact that this suddenly-national issue was relatively new—so new that even the nomenclature surrounding it was still shifting its shape at the time that ANSER started the AIHLS. As ANSER President Dr. David and Homeland Defense Director Randall Larsen wrote in May 2001, the civilian community generally preferred the term *homeland defense*, but the Department of



Defense (DoD) was then beginning to argue that homeland defense was merely a subset of *homeland security*. When ANSER elected to create the AIHLS, they were still on the side of the civilian community in the nomenclature debate.



However, the tide was obviously shifting to the DoD side, with *homeland defense* and *civil* support clearly subsets of *homeland security*. ANSER went with the latter.

The AIHLS manifested "the correlation between [ANSER] vision elements and the key areas identified by the [Hart-Rudman Commission]." In January 2001, the commission released their third and final report on national security in the

twenty-first century, in which they listed five key areas to the *Road Map for National Security*. ANSER's vision connected directly to the first area: "Ensuring the security of the American homeland." With the AIHLS incarnating that vision, ANSER was becoming a real leader in the homeland defense/security arena.

Then came 9/11. The whoosh of American Airlines Flight 77 passing overhead nearby, just before it hit the Pentagon—that was one sound heard in Analytic Services' headquarters. How many people do we have in the Pentagon and are they okay?—that was one collective voice heard among the staff. (Staff were actually headed to a meeting in the Twin Towers that day. Fortunately, they never arrived.) Everyone was okay. The surreality sunk into Analytic Services as it did into the rest of the nation.

So too did something of the fright in the aftermath. In the omnifarious attention that fell on homeland security in the wake of that day's devastating events, ANSER was suddenly seen for the leader it had already become in the arena. That visionary work immediately put the corporation in a unique position to assist the nation as it reoriented itself to address homeland security, but that was a position that frightened some staff. Being high-profile in an environment where, in terms of physical safety, one didn't necessarily *want* to be high profile—it brought a new dimension to the *personal* commitment that people had made to help the nation.

The national attention to homeland security leadership after 9/11 brought many things ANSER's way. The National Security Agency (NSA), for one, tapped the company to perform a mission area analysis of the NSA, to see what the NSA needed to do to maximize its contribution to homeland security. ANSER was also tapped to explore the use of facial recognition and intelligent technologies to provide solutions to security and access problems.

ANSER's homeland security webpage became, in its own right, a clear leader. The weekly newsletter that had grown from 150 to 2,156 subscribers in five months during the previous



year, now far surpassed the initial subscription goal of 5,000 (not to mention the circulation of third-party forwarding). Combined with the *Journal of Homeland Security*, which came online in October 2000 and immediately began featuring distinguished authors (U.S. ambassadors, Joint Task Force Civil Support commander, etc.), ANSER's place in cyberspace was now part of ANSER's prominence in homeland security.

Similarly prominent were the initial efforts of the AIHLS after 9/11. The institute produced an analysis to help the national security community begin to understand the complexity of homeland security. The analysis was delivered to more than 100 members of Congress, senior military staff, leadership at the National Institute of Justice, and the Vice President of the United States.

Here was the integration of so much of Analytic Services' homeland security-related thinking in recent years—the antiterrorism and force protection and chemical-biological defense, for example—put into action. That integration was the difference in thinking that set the company apart from others who had worked specific components of that thinking. While others were looking only at certain *homeland security* trees, Analytic Services was trying to look at both the trees *and* the forest.

That kind of work—that kind of *thinking*—led the chief executive officer of the renowned Center for Strategic and International Studies (CSIS) to routinely tell senior leadership that "ANSER is the organization to contact if you are concerned about homeland security."



That reputation was bolstered by the relationship that ANSER had built with CSIS and the Johns Hopkins Center for Civilian Biodefense in developing DARK WINTER, a bioterrorism tabletop exercise conducted in June 2001. Designed to evaluate a national emergency response to a biological weapon attack against the American populace (the scenario: a covert smallpox attack on Oklahoma City), DARK WINTER sparked House and Senate hearings and significant national debate. And that was *before* 9/11. It also sparked media attention that only grew after 9/11.

Probably the most visible portion of that media attention came with the appearance of ANSER's Director of Homeland Security Randall Larsen on CNN's Larry King Live (*right*), among numerous other television broadcasts and radio shows featuring post-9/11 discussions and debates. By the end of 2001, he had been ANSER's voice of homeland security expertise in numerous briefings to senior military, congressional, and executive branch leadership, including Vice President Dick Cheney.





For a company that was suddenly vaulted into the national spotlight, Analytic Services had in many ways been prepared for this almost all of its corporate life. Studies about air base defense against chemical-biological attacks, for example, reached back decades in the company's history. Some of the capabilities that received new attention after 9/11 (e.g., aerostat radar coverage of the U.S.-Mexico border) were the same capabilities that ANSER had previously studied (in 1994 they provided U.S. Customs with aerostat radar coverage maps of that border).

One capability that ANSER had long since studied and from which the nation now sought post-9/11 insights was the V-22 tilt-rotor aircraft. The results of ANSER's work on the study series "The V-22 and the War on Terror" were briefed to the Marine Corps Commandant, the U.S. Special Operations Command commander, and seven members of Congress.

The national spotlight that turned on ANSER in late 2001 for homeland security purposes illuminated one other particular idea of the company's before the year ended. The idea of an interagency homeland security information analysis center. The AIHLS reached out to the DoD-established Chemical/Biological Information Analysis Center, to get that center's nod of approval for ANSER to pursue the idea further.

The AIHLS then submitted to the Office of the Vice President of the United States a proposal for the institute to become a strategic planning and information analysis center for the newly-

"To say that our business environment is dynamic is a vast understatement."

created Homeland Security Council and Office of Homeland Security. ANSER expected to learn the following year what that proposal might yield.

What 2002 was clearly going to yield, ANSER knew by the close of 2001, was that work in homeland security was increasing so much that it would replace (and then some) the work that had been lost the year before.

Homeland Security Act(ions)

"We continue to live in 'interesting times," went the beginning of the minutes for the May 2002 meeting of Analytic Services' Board of Trustees. "To say that our business environment is dynamic is a vast understatement."

To say that the U.S. government-military environment in the months following 9/11 was dynamic with homeland security-related activities would be an even vaster understatement. Those activities included Congress introducing more than twenty legislative proposals regarding federal leadership of homeland security; the Joint Forces Command creating a



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Standing Joint Forces Headquarters for Homeland Security; Secretary of Defense Donald Rumsfeld revising the Unified Command Plan to create the homeland-oriented Northern Command (NORTHCOM); and the Office of Homeland Security creating the *National Strategy for Homeland Security*, which the President released in mid-2002.

Around that same time, the President proposed the creation of a department that would soon change the face of Analytic Services (ANSER), a change without equal for the corporation since it began more than forty years earlier. It would take an act of Congress to create that department, but that would come later in 2002. ANSER, meanwhile, was busily supporting the nation in every homeland security activity that the corporation could participate in or facilitate using its ample homeland security expertise—expertise that was increasing as the activities were incoming...

In May 2002 the ANSER Institute for Homeland Security (AIHLS) hosted "Homeland Security 2005: Charting the Path Ahead," a conference that assembled the nation's leading homeland security policy makers and professionals.

One month later, the White House announced the President's appointments to his newly-created Homeland Security Advisory Council. ANSER President and CEO Dr. Ruth David was among them.

Less than two months after that, ANSER analyst Rod Propst became the first graduate of the Homeland Security Certificate Program, a five-course program jointly developed and taught by professors at ANSER and the American Public University System (APUS), an internet-based, nationally-accredited consortium of distance learning institutions.

Two weeks later, AIHLS Director Randy Larsen appeared on the CBS Evening News with Dan Rather to discuss recently-released al Qaeda videotapes showing chemical weapons experimentation.

Less than one month after that, ANSER analysts Jeff Adams and Stephen Marquette appeared at a book signing in Philadelphia for their recently-published book (*right*) *The First Responders Guide to Weapons of Mass Destruction*.

Throughout these months, personnel affiliated with the AIHLS made innumerable presentations and generated published papers, analyses, and opinion pieces, each product another building block in the nation's intellectual foundation for homeland security.

That voice of homeland security expertise in the public forum was inherent to AIHLS efforts in 2002 that led to ANSER winning five new major contracts. The sponsors of those contracts read like a *who's who* in the homeland security arena: the U.S. Coast Guard (whom ANSER would support in doing port vulnerability assessments); the Department



of Agriculture (for mission area analysis supporting their homeland security plan); the National Security Agency (for a similar analysis supporting *their* homeland security plan); the Department of Justice (for emergency preparedness exercises); and the Department of Defense (for supporting their nascent homeland security office). In addition—a momentous addition—to all of this, the AIHLS won its first grant, from the Nuclear Threat Initiative, a foundation created by philanthropist and CNN founder Ted Turner and former U.S. Senator Sam Nunn.

That demonstration of ANSER's homeland security expertise drew multiple organizations seeking to partner with the corporation in homeland security work. The steady deluge of invitations proved a two-fold challenge. While AIHLS personnel had to screen and prioritize commitments in light of those invitations, ANSER itself had to sharpen its focus and define the areas where the corporation would establish and maintain leadership.

Suffice to say, 2002 was the year that solidified Analytic Services' reputation as a homeland security expert—and that is no understatement. Toward the end of the year, that reputation was simply *building*, its eventual stature seemingly limited only by ANSER's focus, potential, and resources.

Late in the fall of 2002 came the event that would set ANSER on a path involving everything, from vision to means, that ANSER had. On November 25, 2002, Congress passed Public Law 107-296, otherwise known as the Homeland Security Act of 2002. With that act the President's earlier proposal for a Cabinet-level department for homeland security gained the approval that would finally set the plan toward fruition: the U.S. Government would create the Department of Homeland Security (DHS), due to open its doors for the nation's business early the following year.



The creation of this department would be a massive undertaking that involved the realignment of twenty-two agencies, including the Federal Emergency Management Agency (FEMA) and the Department of Transportation. The President himself rendered perhaps the best description of the undertaking when he called it the largest reorganization of the federal government in half a century—an allusion to the National Security Act of 1947, which created the Department of Defense and a number of other major entities.

Since the end result would be a department whose mission would be an undertaking even greater than the effort to *create* the department, the congressional design for the DHS included a Studies and Analysis Federally Funded Research and Development Center



(i.e., a homeland security "think tank") dedicated to the department, to facilitate the department's mission.

And so one other part of the Homeland Security Act of 2002 (Section 312) was the official direction to create what would be called the Homeland Security Institute.

Final Frontier: New Frontier

Early on February 1, 2003, approximately fifteen minutes before it was scheduled to land at the Kennedy Space Center in Florida, the U.S. space shuttle *Columbia* disintegrated upon re-entering the earth's atmosphere. The accident occurred nearly forty miles above Texas. Multiple entities, with NASA and the Air Force at the forefront, were involved in the recovery effort.

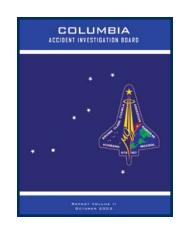
In the effort to investigate the cause of the accident, Analytic Services Inc. (ANSER) was involved. That high-profile investigation, called the Columbia Accident Investigation Board (CAIB), would spend most of the year focusing on a debris field from the accident that spread over 2,000 miles in East Texas, to determine what happened. Analytic Services' support would include *hosting* the CAIB work, as more than forty people relocated from the Johnson Space Center in Houston to the seventh floor of ANSER's Quincy Tower.

Landing the chance to support the CAIB turned on not one but two aspects of Analytic Services' reputation: its heritage of work in all things *space*, and its renown in supporting high-profile boards and commissions. One such commission that ANSER had supported in recent years was the investigation of the terrorist bombing of the USS *Cole* while it was docked for refueling at a port in Yemen in late 2000.

So while ANSER's hand in the CAIB was relatively "easy" to place, with the corporation's reputation truly preceding it, the achievement came during an otherwise difficult year.

"The chaos," ANSER's Board of Trustees wrote in early 2003, "continues unabated with no end in sight." *Chaos* referred to the government-military environment in the wake of 9/11 as it continued rippling through the nation—if only in waves of homeland security-related policy, strategy, and organizational developments.

Two major events roiled that environment, affecting the work of companies like ANSER. The first was the opening of the Department of Homeland Security (DHS) on January 24, 2003, entailing tectonic shifts in the federal landscape for months to





come as the likes of FEMA and the Department of Transportation were realigned under the new department. The vast movement created an inertia in processes that affected both the beginnings of new homeland security-related work and the considerations of such work already in progress.

A similar effect on the government-military landscape happened as a result of the U.S. campaign against Iraq beginning in March 2003, which consumed the attention and resources of many. The war constrained contracts across the board. Resources for existing work were tight, and the opportunities for new work tighter.

The confluence of the DHS stand-up and the war in Iraq made for interesting ANSER times. With government and military work and resources fluctuating, ANSER had to adjust its workload and its sights accordingly—for the near term at least. The company leadership did not make the necessary adjustments with a near-term focus though. As ANSER had always done, since it first began, they picked courses of action for the *now* based on a long look at the *not yet*, as best as they could see it.

Part of that long-term look in 2003 included considering the entire spectrum of government-military work, from policy research to operations support, and reckoning where ANSER needed to be in that spectrum. Work in the homeland security sector, for example, was booming. The demand for homeland security presentations exceeded the company's capacity to respond. On the other hand, the homeland security work was not yet what ANSER expected it to be—a predicament created by the aforementioned changes in the government-military landscape.

The company leadership saw that, for long-term viability, it would need to compete across that spectrum. The *look forward* involved another *look back* as they revisited the Articles of Incorporation, for further guidance in being a "David" among the many "Goliaths" in the competitive space. The conclusion: ANSER would not alter its overarching charter as it pressed on toward that entire spectrum.

"ANSER is facing an 'opportunity-rich' future," the board noted as a result of that discussion, "but one that is equally full of competitive pressures." The list of those involved in the CAIB work were a spare but fitting illustration of this reality: ANSER was one of fifteen contractors who supported the CAIB in one form (e.g., government affairs) or another (e.g., engineering investigation).

While this space-related work was relatively short-lived (the CAIB work concluded in October 2003), more of *space* lay in ANSER's future—one new project coming directly as a result of the CAIB project. In 2004, ANSER would again support NASA for a high-profile commission: the President's Commission on Implementation of U.S. Space Exploration Policy (otherwise known as the "Moon, Mars and Beyond" project). Led by former astronaut E. C. "Pete" Aldridge, Jr., this distinguished commission would make recommendations



to the president on his new vision for the nation's civil space program, announced in January 2004.

Analytic Services would rapidly create a "turn key" operation for the commission members, who had less than four months to seek inputs from the public, private industry, and academia, then turn their findings over to the President.

"ANSER is facing an 'opportunity-rich future'...but one that is equally full of competitive pressures."

Hired less than two weeks after the President's announcement, the ANSER team (led initially by Jay Baumgartner and subsequently by John Rancher) prepped unoccupied office space at ANSER headquarters for the commission's arrival, equipping it with computers and communications in a independent network that met NASA standards. Featured on that network—one other "detail" that the ANSER team tackled in that first week—was a "Moon to Mars" website to accomplish the commission's public outreach mission.

More than 7 million users from countries around the world would hit that website over the next one hundred days. Some of those hits were to bend the commission's ear, and ANSER developed a tool to monitor and to catalog those eventual 6,500 public inputs to the commission's deliberations. Others from among those 7 million hits would seek real-time video streaming (another tool the ANSER team developed) to view the five public hearings that the commission would hold across the United States, as well as the final report press conference.

"Great job!" Commission Chairman Aldridge would later write, a personal postscript to his formal letter complimenting the ANSER team on an "expeditious and professional operation."

The exclamation *Great job!* would be heard elsewhere in Analytic Services in the spring of 2004—around the mid-point of the "Moon to Mars" commission's work. Except this would be in response to a different development—the kind of development that ignites the kind of excitement that exclamations such as "Great job!" can only hint at. The development originated in late 2003: the DHS's request for proposals for a Federally Funded Research and Development Center (FFRDC) to support the department's Science and Technology Directorate.

The Homeland Security Institute

"When corporate goals were established for Fiscal Year 2004," the leadership of Analytic Services Inc. wrote, "the Homeland Security Institute was only a dream."



They were writing in late 2004, one year after the company had decided to throw its hat into the proposal ring for the Homeland Security Institute (HSI) work. The foundation for the decision had been set long before: Analytic Services Inc. sought to become *the* major player in studies and analysis market for the *homeland security* and *homeland defense* missions.

The company had made tremendous headway toward that aim. By early 2004, for example, the ANSER Institute for Homeland Security continued to grow as the highly-visible embodiment of *homeland security* work for the nation. And the homeland defense work was no less burgeoning, with such work for the Office of the Assistant Secretary of Defense for Homeland Defense. The prospect of winning the HSI presented unparalleled opportunity, but in early 2004 it was only that to Analytic Services: a *prospect*.

The request for proposals to become the "parent institution" for the Federally Funded Research and Development Center (FFRDC) was issued in December of 2003. Proposals were due in January. And on April 23, 2004, the award was announced to the public.

It was a date that would go down in the history of Analytic Services Inc., like the date of July 28, 1958. Because one had to go all the way back to the origin of the company to find a development that was similar in scope and ramification to the origin of the Homeland Security Institute (HSI), with Analytic Services as its parent institution.

The beginning of the HSI was the conclusion to a fifteen-month journey that began with Section 312 of the Homeland Security Act of 2002, which was passed into law in November of that year. Now, in the spring of 2004, the congressionally-approved idea of a "think tank" dedicated to the Department of Homeland Security had come to fruition. And ANSER—or rather "Analytic Services Inc."—was at the helm.



The distinction between "ANSER" and "Analytic Services Inc." was only one of the many changes that came about as a result of

the landmark win for the corporation, but the change was critical. Creating the Homeland Security Institute meant creating an entity that was literally "firewalled" off from the ANSER entity. Enforcing that permanent distinction included control of access to physical spaces, isolated information networks—and a return to the full name that the corporation began with. *Analytic Services Inc.* would refer to the corporate "parent" of the two operating units, HSI and ANSER.

Balancing the lives of the two operating units healthily as one company would be a delicate thing to achieve and sustain. On the one hand, the corporation wanted to minimize the sense of a "two-class" workforce—a situation that the corporate leadership believed would lead to, as they wrote later that year, "a very unhealthy workforce."



On the other hand, the isolation between HSI and ANSER was required to prevent an organizational conflict of interest—a necessary dichotomy. FFRDCs are not allowed to compete for contract work against other entities, because their "trusted agent" status and access to sensitive government information would be a distinct competitive advantage. When a parent corporation that operates an FFRDC also has business units that compete for contract work, steps must be taken to eliminate the exchange of information or insight that might create a conflict of interest.

The dichotomy, a challenge *prima facie*, looked to prove challenging in ways that Analytic Services could not yet see. Staffing was one example of this, as both operating units soon found themselves competing for the same labor pool. (Building and shaping a workforce would in fact become a major corporate focus over the next year.) A contractual twist in



the HSI-ANSER "firewall" further complicated this staffing conundrum: HSI staff could not be used on ANSER projects, but ANSER staff could be used as reach-back for the HSI.

In one core statement, the primary mission of the HSI was to assist the Office of the Secretary of Homeland Security, Science and Technology (S&T), and the DHS Operating Elements in addressing important homeland security issues, particularly those requiring scientific, technical and analytical expertise. HSI's work would come from the DHS, other federal government entities, state and municipal governments, and public charities, and would be consistent with that core statement. The new contract provided for a "phase-in" period, during which the initial cadre of ten employees developed basic procedures for task monitoring and control, interviewed scores of job applicants, and negotiated the first HSI research plan.

That plan comprised twenty-five tasks (with another soon added, bringing the total to twenty-six), an ambitious agenda for a brand new enterprise. June 14, 2004 marked the changeover from Phase-In to Operational period—the Institute was officially "open for business" and began executing the approved research plan. A mere four days later, on June 18, 2004, the HSI delivered its first analysis product, an independent assessment of a major DHS acquisition program.

The institute's full-speed-ahead launch, despite the profound challenges of creating a studies and analysis center from scratch, was facilitated in no small part by Analytic Services' investment in homeland security almost five years prior. The primary return on that investment, the ANSER Institute for Homeland Security (AIHLS), was substantial enough



in its reach and resources that ANSER realized, during the HSI proposal stage, that winning the work would mean merging the AIHLS with the HSI.

Subsequent to the HSI win, therefore, Analytic Services subsumed into the new institute the public service components of the AIHLS identity, including *The Journal of Homeland Security*, the *Weekly Homeland Security Newsletter* (readership by this point: nearly 29,000), even the web domain name www.homelandsecurity.org.

With those "donations" the AIHLS was dissolved and the personnel and resources associated with those activities were transferred to the HSI. The network of relationships that transferred with them was a boon to HSI's launch—as was the momentum that Analytic Services had already gained in leading homeland security thought. The AIHLS's "dual benefit" concept, for example, which proposed solutions for both ongoing and emerging threats, gained particular traction after the HSI win. The concept inspired a co-chair of the National Research Council report *Making the Nation Safer* to modify his personal lexicon to adopt the "dual benefit" phrase.

One other homeland security-related part of Analytic Services that came to an end, along with the AIHLS, after the HSI win was the *homeland defense* strategic thrust that the

"We are now too big to be a small corporation, and too small to be a big one."

company began in 1999. Five years later and all five objectives of the strategic thrust had been achieved. The first homeland defense horizon had been reached, and the land that opened up beyond it was the Homeland Security Institute.

It was a whole new world for Analytic Services Inc., but the land that the company originally set out from—marked by a certain decades-old building on a street called Leesburg Pike—would always remain within sight. A poignant letter testifying to that fact arrived at the home of Dr. Stan Lawwill, Analytic Services' first president, not long after the HSI win. "We didn't have to compete on it," Dr. David wrote out of celebration (and with certain irony). "You had set up such a fine ANSER...they gave it to us."

A Year in the Life

"We are now too big to be a small corporation, and too small to be a big one."

Analytic Services' win in 2004 to become the parent institution of the Homeland Security Institute, the only Federally Funded Research and Development Center (FFRDC) dedicated to the Department of Homeland Security (DHS), grew the corporation in ways it had never experienced before. *Identity* was a major ramification of that growth during the year 2005,



and as the corporate leadership sifted that growth throughout the year, the above statement was one of the resultant reflections.

With the "neither small nor big" aspect to Analytic Services came certain new challenges, one of which was building, shaping, and retaining a workforce. The recruitment process, like the marketing process of the company over the years, had been fruitfully passive. "Talent attracts talent. Important problems attract talent. Commitment to something beyond the next paycheck attracts talent—and we have all of that," Dr. David reflected on the people that had come to make up Analytic Services in her experience, from 1998 to the present day.

She was also alluding to the people that Analytic Services had been attracting over the four decades prior to that, and that "something beyond the next paycheck" to which the staff had always been committed was doing good work in service to the United States.

Having all of that, the corporation had, for all of its life, been drawing people by...well, being itself. The HIRE program, which Analytic Services started in 1986, and which still exists today for "Help In Recruiting Employees," was created to *facilitate* the process of finding more quality people to join the staff—not to enact that process. Encouraging the current staff to refer candidates for new staff was a technique that the corporate leadership devised because of the overwhelming influx of applicants. In fiscal year 1986, almost 8,000 people applied to join Analytic Services.

While applicants weren't numbering quite that high nearly a decade later, the story remained the same: a shortage of applicants was not usually a concern; the foremost concern was matching those applicants to critical needs. Passive recruiting was not so much a part of ANSER's overall *strategy* as it was a part of ANSER's original culture—the culture that saw its work and its people being drawn to ANSER more than ANSER trying to draw them.

Analytic Services generated more revenue than ever before in its 47-year history.

In 2005, however, the recruitment process became part of a workforce strategy, to obtain, develop, and sustain more of the same quality people that Analytic Services had been made of

since 1958. For now, with the existence of two distinct operating units (HSI and ANSER) and with such other factors as the security clearance process debilitating the hiring process, the shortage of applicants *was* a concern. Strategy in the workforce needed to be a priority if the workforce was going to grow.

The *work* itself, on the other hand, was still growing for the corporation in 2005, yielding a number of successes despite the dynamics that had come to mark the government-military environment since 9/11. Analytic Services worked the beginning of a new Joint National Guard Bureau exercise program (VIGILANT GUARD), obtained follow-on work in nuclear weapons counterproliferation, and won new work in chemical-biological defense, to name a few.



Through this and the rest of the work that year, Analytic Services generated more revenue than ever before in its 47-year history.

History was reflected brightly not only in the *present* that year but also in one particular look at the *future*, as the corporate leadership planned to reinvigorate the Independent Research and Development Program—the roots of which went back four decades. The new iteration of this program would be to sponsor one study per strategic growth initiative, thereby continuing the tradition of literally studying market segments that Analytic Services might one day enter.

Maintaining the continuity of this and the rest of Analytic Services' work moved the leadership to develop some other unique plans in 2005, one of which turned on a scenario: What would Analytic Services do if a catastrophic event in the metropolitan Washington area damaged (or devastated) the company's infrastructure—causing the remnant to relocate outside that area? Part of the planning involved replicating core business processes at the Colorado Springs facilities, and by mid-2005 the "Contingency Disaster Team" made that replication a mission accomplished.

Certain other important work that appeared on the Analytic Services' scope at mid-year would also become *mission accomplished*—an enormous accomplishment—before the year's end. On May 13, 2005, the Department of Defense (DoD) released the list of bases that the department suggested should be either realigned or closed. Concurrent with that release, the Base Realignment and Closure Commission (BRAC) began their congressionally-authorized work to independently analyze and evaluate the list. They would ensure that the list met the criteria established by the public law regarding defense base realignments and closures.

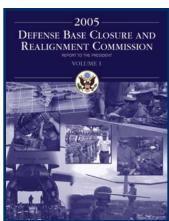
The commission had until September 8, 2005, to furnish a report of their findings and suggestions to the President and to the American public.

The vast analysis, the short timeline, and the inclusion of public inputs (the BRAC Commission website would receive over 25 million hits before all was said and done)—this, in so many words, was where Analytic Services Inc. came in. And here came yet another demonstration of the corporation's legacy to, as former board member Mr. Bennett Boskey put it, "break its back to do [good work] in a hurry [when the client needs something done in a hurry]—to do it right, but to do it in a hurry." Contracted one week before the DoD released the Base Closure List, the ANSER operating unit jumped like a high-speed vehicle into the work, tires screaming.

In that week between ANSER's hire and the release of the Base Closure List, the ANSER team (with Jennifer Moustgaard leading this particular aspect of the work, and Catie Borklund directly supporting the commission leadership in the overall initial start-up) designed, developed, and launched a public website to ensure complete transparency of the BRAC Commission's review process.



The ANSER team also developed (Jennifer Moustgaard leading) and maintained (Mike Perlowski leading) a web-based "electronic library" that enabled the public to view and search the entire database of documents—over 200,000 documents—that the commission received, as well as public comments entered through the BRAC Commission website. (The website, since "frozen" for archival purposes—a task supervised by David Dante, ANSER's deputy project manager on this effort—can still be viewed at www.brac.gov.) The innovative approach won kudos from Congress and the public alike.



Finally, the ANSER team edited (Project Manager Chris Cole leading) and published (Mike Bowers leading) the final BRAC Commission report, a task that meant working over Labor Day Weekend to meet the compressed delivery schedule.

When the four-month process ended in early September that year, with the BRAC Commission's submission of their findings to the President, ANSER's hybrid team of twenty-one analytic and functional staff had worked seven days a week, sixteen hours a day, to support the commission. The blood-sweat-and-tears effort had matched the formidableness of the task. The Commission reviewed more documents, visited more bases, held more public hearings than *all four previous* BRAC Commissions—and did it in less time.

And they turned the report in to the President on time.

In a letter written midway through the commission's efforts—to ensure that the Analytic Services leadership were aware of the impact that their ANSER team (right) was already



making—the BRAC Commission chief of staff wrote Analytic Services President and CEO Dr. David to say the following:

"ANSER is an essential and irreplaceable element to supporting the Commission in their critical tasking and, most importantly, the American public and the President.... If the BRAC Commission had to do it over again, we would contract all support activities to ANSER. You have a superlative organization, to include the special leadership and



enthusiasm of Forrest Horton [then Director of Threat Reduction and Response Directorate] and Steve Bull [then Manager of the Legislative Analysis Division]."

Positioning to support future high-profile commissions was one part of the corporate outlook on the coming years as 2005 ended. A substantial part of that outlook involved several major reflections on the first full year of operations for the HSI. For one, the

institute received "relatively good marks," as the corporate leadership noted, "particularly in technical quality (including subject expertise, independence, and objectivity)."

"This collaborative approach...had been a hallmark of the HSI from the start."

Those good marks tied into another major reflection on the HSI's first year: the results were better than expected for a first-year FFRDC. The start-up of any new such center, it was widely acknowledged, is notoriously difficult, especially with the shifting priorities and urgencies to which the DHS sponsors must respond. Put another way, the HSI was a *new* organization being sponsored by a *new* department to support a *new* national mission.

And nearly every aspect of the institute's work, it was further noted, involved multidisciplinary and cross-divisional approaches. This collaborative approach—any one product of HSI work is the product of the collective work of the entire institute—had been a hallmark of the HSI from the start.

It was in fact the hallmark that Analytic Services had maintained from its start: good people whose *goodness* included working well together, "which is not what you see at most companies," Dr. Lawwill would later note in looking back on how far Analytic Services had come.

Looking ahead, the Analytic Services' leadership saw that hallmark becoming even more prominent, as one event at the close of the year demonstrated. During the week before Christmas 2005, the HSI hosted a Cargo Security Summit that drew the world's premier authorities to Washington, D.C., to elicit private-sector feedback on DHS's strategic framework for cargo security.

Like the BRAC Commission's call to ANSER, the DHS's call to HSI about the summit was so formidable as to seem almost impossible. Receiving the request during the second week in November, the institute had mere days to plan, organize, and conduct a summit that would draw national and international attention.

Working as a team, the HSI staff enabled the registration to run flawlessly, the summit to unfold successfully. Their efforts won them a Team Excellence Award that year—an award that the Contingency Disaster team also won for their work in 2005.

So did the BRAC Commission team.



"This Is the Kind of Work That We Should Do"

On August 29, 2005, the Category 4 hurricane dubbed Katrina devastated the Gulf Coast of the United States, displacing more than a million residents—what has since been called the greatest mass migration in the nation's history. (FEMA eventually reported that Katrina evacuees filed for assistance from nearly every county in *every state*). Less than a month later, a hurricane dubbed Rita slammed into the same region, exacerbating the displacement and the damage.

The horrific devastation to the state of Louisiana, the New Orleans area in particular, later brought Analytic Services Inc. into a critical part of the recovery effort.

What would eventually bring in a team from the ANSER operating unit was the Find Family National Call Center (FFNCC), which began in September 2005 with 150 people in a Baton Rouge Holiday Inn conference room equipped with little more than phones, legal pads, and pencils. The call center's mission was to 1) reunify loved ones with the victims of the hurricanes; 2) assist in identifying the missing; and 3) support the re-interment of those displaced from public cemeteries.



The daunting task facing this staff soon compelled the state to assess, and to recommend ways of improving, this joint effort between FEMA, the Department of Health and Human Services (DHHS), and both Louisiana's law enforcement and its Department of Health and Hospitals (i.e., the state medical examiner). The FFNCC had moved into a former sports retail store building in October. By November, the call center was facing over 10,000 missing person reports.

Later that month, the State of Louisiana reached through the DHHS to tap Analytic Services for that assessment.

It was high-risk, the corporate leadership knew, this opportunity to be involved in the highly-charged environment of the disaster and its aftermath. The conclusion of the matter: *This is the kind of work that we* should *be doing*. Analytic Services was made for this.

The Homeland Security Institute was already involved. After reviewing the Department of Homeland Security's (DHS) data integration, analysis, and lessons-learned efforts, the HSI identified a topic that seemed to be overlooked: the potential contributions of faith-based organizations and other non-governmental organizations. With DHS approval, the institute



researched and documented the capabilities of these organizations and offered a blueprint for better coordinating them with the efforts of federal, state, and local governments.

This high-profile effort was one of several ways in which 2006 was a year of substantive impact. For the first time, HSI personnel were embedded in DHS, significantly deepening and strengthening the HSI-DHS relationship. The institute's priorities were all mapped to Secretary of Homeland Security Chertoff's "top five" priorities. The findings of the HSI Advisory Group—formed to ensure that the institute is addressing senior DHS management priorities and cross-department needs—were "overwhelmingly positive" about the institute. The sponsor base for the institute was becoming increasingly diversified.

This progress would lead the Analytic Services leadership to proudly record, late in the year, that "HSI has turned the corner and matured significantly."

That maturation included HSI's workforce, which had grown dramatically over the Institute's first two years of operation and numbered almost 100 analysts by the end of

"HSI has turned the corner and matured significantly."

2006. With eighty-five percent holding advanced degrees (forty percent doctorates), it was clear that a highly-qualified workforce was in place. Moreover, after the turbulence that had accompanied HSI's initial growth spurt, the rate of staff retention improved to the point at which senior leadership could conclude that it was "no longer an issue."

Some of HSI's "best and brightest" shone that year, as reflected in the Analytic Services Excellence Awards. For example, Tavis Steenbeke was recognized for his contribution to HSI's ground-breaking work on the topic of wide-area biological restoration. HSI risk management teams won two team awards—a second quarter award and the annual one—and the newly-instituted Oliver Award for their innovative work in resource allocation. One team member, Aric Miller, would garner the same double-honor (winning a second quarter award and the annual award) for his individual work on these projects.

Meanwhile, some of ANSER's best and brightest were put to the post-Hurricane Katrina work when the Analytic Services leadership made that decision to answer the call of this nation-rebuilding effort in Louisiana. In December 2005, an ANSER team evaluated the FFNCC as requested and submitted recommendations for how to improve it. In January of the following year the call went out for a contractor to implement the recommendations.

A month later, Analytic Services was notified that they had won the work, and a team from the ANSER operating unit officially started on February 15, 2006. (The FFNCC officially changed its name to the Louisiana Family Assistance Center (LFAC) that same day.) ANSER would support the State of Louisiana and the DHHS in all three aspects of the LFAC mission, as well as develop a robust database infrastructure to replace the current Victim Identification Program software.



From the outset, Analytic Services kept an eye on the horizon of this important work. They knew that it would lay the foundation for the DHHS to influence the debate in—and to improve the department's ability to support—mass casualty and consequence management efforts for future catastrophic incidents. Taking the lessons learned from the 9/11 terrorist attacks, the LFAC staff would use victim assistance best practices and DoD instructions for establishing and operating their family assistance center. Yet, even with such practices to help guide them, the LFAC staff knew (and later noted in their final report) that they were "writing a brand new guidebook."

That outlook would lead ANSER to create, in addition to fulfilling its prescribed tasks for the LFAC, a framework for a standardized Family Assistance Center (FAC). The strategic goal: to provide a more effective FAC response to future disaster recovery challenges.

Within the first two weeks of ANSER's entry into the LFAC operations, more than fifty of the FAC staff were transferred to ANSER oversight. The overall makeup of the FAC staff was diverse, with professionals experienced in forensic medicine, genetics, mental health, pathology, and Internet technology—along with volunteer chaplains, mortuary specialists, and call center specialists. More than 400 volunteers from around the country would work in the LFAC before it was done.

Within a few months, both DHHS and on-site officials were praising the work of the ANSER team. The glowing reviews would continue, although this team was, like the ANSER team for the BRAC Commission the year prior, a "silent partner" in the operations they were supporting. News reports from the likes of CNN on the incredible work being done at the call center did not specifically mention ANSER…but the reports were overwhelmingly positive.

The kudos—emphasis on the word *overwhelming*—suited the task and the work on it. More than 52,000 calls came into the LFAC during its eleven months of operations. To investigate the 13,200 missing person reports received, the LFAC logged over 163,000 *outbound* calls. The yield from such calls included the kind of triumphant outcomes one would think to find only in fiction novels.

One such outcome involved a pregnant woman whose family had evacuated to Mississippi, and when they didn't hear from her, they contacted the LFAC. The staffer on the case, scouring websites for information to help connect these disparate dots, eventually came upon a note posted from a woman—who ended up being said pregnant woman—who was trying to let her family know where she had fled to and that she was okay. The case concluded with that LFAC staffer's phone call to the pregnant woman's mother in Alabama...who responded by "yelling and crying with happiness."

The call center was only one of many components to the LFAC that ANSER helped establish and operate. "When a call to the toll free help number was received at the LFAC," the LFAC

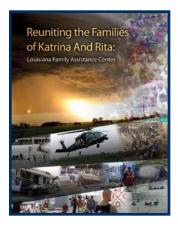


Final Report would later note, "it triggered an organized and compassionate process...." A forensic identification unit; DNA collection and analysis; information technology; web search/lead investigation; re-interment—these were among the twelve primary components of that process.

Support to the *re-interment* component sent ANSER into 82 cemeteries during a two-week period to extensively survey the damage. Two three-person teams documented 901 tombs and 549 vaults that were displaced or damaged in 68 of the 82 cemeteries surveyed. Note that the DHHS-prescribed work only called for ANSER to support re-interment related to *public* cemeteries in Louisiana. Of the 82 cemeteries surveyed, only *four* of



those were classified as public—yet another example of Analytic Services going beyond expectations to serve the Nation.



Supporting the *information technology* component, ANSER fulfilled its software development task by co-developing a program to more effectively track vast amounts of data in an ante-mortem database. The program identified relationships among data entered on a reported missing person, to speed the identification of the deceased and the reunification of separated families. Intended to include a highly secure, web-enabled program that automates Family Assistance case management, the software, the LFAC Final Report noted, would represent "a significant advance that will benefit the nation...in improved recovery operations in future large-scale disasters."

By 14 August 2006, when the LFAC ceased operations—wherein such investigations had dwindled to the point that both the unresolved cases and any other incoming reports could be handled by local law enforcement—the call center that had started in a hotel conference room almost a year prior had resolved *ninety-nine percent* of the 13,200 missing persons reports.

According to Louis Cataldie, M.D., the acting State Medical Examiner, the LFAC's effort was "one of the most comprehensive and successful searches for missing persons in the nation's law enforcement history."



Dimensions

The Hurricane Katrina effort was in fact a truly *corporate* effort, as the Homeland Security Institute (HSI) supported the Department of Homeland Security (DHS) in its response, as well as in its planning and reorganization efforts.

The Hurricane Katrina work of the HSI for the DHS was one example of a relationship that, by then, had come a long way—and still had a way to go, to become recognized as a serious entity. "You can't wave a wand [over those first couple of years] and say, 'You are a known and trusted source,'" George Thompson would later reflect, from his position as a deputy director of the institute. The institute worked for the DHS, but the *relationship* was something that had to be developed.

In a sense, this was the beginning of Analytic Services all over again—something else George Thompson would later observe on the figurative eve of the corporation's half-century celebration. In late 2007, the HSI—a Federally Funded Research and Development Center (FFRDC) for the federal government—had grown to nearly the size that Analytic Services was in 1976, when the corporation left behind its status as an FFRDC for the military.

Like the corporation in its early years, when the staff had to forge that relationship with the Air Force—cultivating trust by doing stellar work then reaping the access that came with it—the Homeland Security Institute in *its* early years was in a similar position with the Department of Homeland Security.

The HSI's position was more difficult though, by several orders of magnitude, than the position that "ANSER" was in when it first began. There were several reasons for this. First, homeland security things were, Mr. Thompson would further reflect, "ten times harder than they would be in any other context because the DHS is such a new organization."

That included the "inherently more dimensional" aspect of the *homeland security* problem. In the area of *homeland defense*, for example, the DoD owned that problem as well as the "space" within which that problem was framed. In homeland security, on the other hand, there was really no one owner of any one problem. An analogy for this, turned up by HSI research, was the nation's interstate highway system in its nascency, with its crossing of jurisdictions federal, state, and local—and of issues financial, technical, and more.

Another difficulty having to do with *dimensions* was what board member Al Madansky, who assisted with the proposal that Analytic Services wrote for the HSI work, observed of what the DHS seemed to need in an HSI. "What [the DHS] needed, I think, was what the Air Force had in the RAND Corporation and what the Air Force had when they had ANSER [during the 1958-1976 era]: an organization that could look far into the future [as RAND has always done] *and* look at the immediate problem [as ANSER was created to do]."



To couple near-term analysis with long-range thinking into a single organization, in other words; this was the key to the HSI identity.

Another difficulty facing the Homeland Security Institute was that there were no Stan Lawwills or Jack Englunds—people who brought into the origin of Analytic Services instant credibility with the Air Force, the corporation's primary sponsor. The name and certain

people of Analytic Services certainly brought cache to the origin of the HSI; that reputation was in fact integral to the HSI work ever coming Analytic Services has done a remarkable Analytic Services' way to begin with. But the HSI needed to build that cache in its own name through good people and good work.

"You have to keep winning [that trust]. And job of maintaing the trust."

A significant point in that journey was reached in 2007 when the first HSI analyst was embedded into the Office of the Secretary of Homeland Security, working directly for the chief of staff. Other staff had been embedded in the department, but to put one in the office of the senior DHS leadership was a critical new vantage point.

The achievement was a testament to the legacy of a corporation whose character had always included an evolving trust in the relationship with those they served on behalf of the nation. "You can't win the trust once and for all," Dr. Platt would later reflect, looking back at the corporation's first half of a century. "You have to keep winning it. And [Analytic Services] has done a remarkable job of maintaining that trust."

That trust, bred by the excellence of the Analytic Services people and of their work, was embodied in a Rod Propst in an area like antiterrorism for an Air Force sponsor like the Pacific Air Forces (PACAF). The work of Kathy Sehhat for the Air Force Surgeon General (AF/SG) was itself a throwback to the 1970s time when the AF/SG tapped Analytic Services to help evaluate medical information systems.

The ANSER-Air Force relationship of old had changed in numerous ways but the quintessence of that relationship had remained the same. That relationship was built on trust won and then sustained over the long haul—through good people and good work.

The HSI-DHS relationship was experiencing similar growing pains, for a similar aim: a relationship that would stand the test of time.



Systems Thinking. Applied.

The notion of building the Homeland Security Institute staff into the premier homeland security thinkers soon proved beneficial to another forward-looking project that Analytic

Services undertook beginning in 2006: the Applied Systems Thinking (ASysT) Institute.



The idea for the ASysT tapped into the root system of educational initiatives that

had spread through Analytic Services in the decades since the corporation first began, with education assistance the incipient root.

An ANSER Management course built around a videotape course produced for managerial scientists and engineers by the University of Southern California in 1986; the in-house series on acquisition management that began in 1994; similar offerings in 2004 that included "Scenario-Based Exercises and Simulations" and "Proposal Development"—these efforts were met with the kind of staff accolades that Analytic Services leadership recorded for the 2004 in-house courses (taught by both internal experts and external vendors): *Staff response has been extremely enthusiastic*.

Perhaps the best example of Analytic Services' increasing push to grow its staff by challenging them with relevant education, was the creation of "ANSER U" in 1996. Principal analyst Allen Haenisch, who had been teaching a statistics course at George Mason University, suggested to ANSER leadership that he teach the same course at ANSER, for ANSER staff. The idea fell under the rubric of then ANSER President Dr. Fabian's cultural changes at the corporation, skill enhancement being one of those waves.

The Analytic Services leadership loved it. Allen launched it. A score of staff signed up for it. And in August of that year, with "Radar Fundamentals" and "Applied Calculus" as two of the initial courses offered, ANSER U began (with Allen elected the "dean" of the fledgling institute). Those first classes would meet for one evening weekly in ANSER's conference center complex, each course lasting several months. Other "faculty" from among ANSER staff (e.g., Ms. Roberta Carlisle) volunteered their time to teach (e.g., she co-taught "Mathematical Modeling"), while the ANSER staff students volunteered their time to attend. ANSER paid for the textbooks.

ANSER U was in fact the ultimate example of the Analytic Services legacy of promoting staff learning by creating something educational out of its own assets. Until 2007, that is, when it became the *penultimate* example, second only to the ASysT initiative.



Like a certain other *institute* formed several years earlier in the corporation, the Applied Systems Thinking Institute did not begin as the "ASysT" but as a specific investment in a strategic thrust with an unassuming name. In late 2005, Dr. David proposed to the rest of the Analytic Services leadership that they fund the tuition and fees—plus the classroom time—for staff to get an education that would equip them in "systems thinking."

Initially, this education was a graduate certificate in Systems Engineering from the Stevens Institute of Technology, the fourth-oldest technological university in the United States and a recognized leader in teaching competencies (e.g., systems and enterprise architecting) for technology management "to solve complex problems and to build new enterprises." The institute's aim to steep students in research efforts that "cut across disciplinary boundaries," combined with its impact on "issues of national and global significance," dovetailed with several challenges facing Analytic Services' staff—the HSI staff in particular.

"How do you think about distributed governance systems," Dr. David would later sum it up, "and make sure all of the pieces mesh?" This thinking cut across *homeland security* and any number of subjects (*energy*, *health care*, etc.) that entailed massive systems problems. The fundamental concept: *systems thinking*.

The Systems Engineering Certificate program embarked in the spring of 2006 with its first cohort group of three staff from the HSI operating unit and fourteen from ANSER. The students were divided into four project teams, each team researching a relevant topic

such as integration of information flow from CBRNE systems, or systematic screening for air travel. The Stevens Institute faculty at the helm were as diverse as the students—a self-evident illustration of the value to Analytic Services to be found in this cross-disciplinary venture.

"This thinking cut across homeland security and any number of subjects... The fundamental concept: systems thinking."

Collectively, the teaching staff presented a deep-focus portrait of career experiences splashed with such premier industry colors as Honeywell and Bell Labs.

After reviews of their work by a Stevens-assembled panel—a series ongoing during the course of the research work—the project teams presented their resultant papers to the Analytic Services Board of Trustees at their annual meeting late in the year. One project, a systems analysis of "special needs population evacuation during catastrophic events" (by ANSER-HSI team members Robert Edson, Larry John, Peter Vinch, and Patrick Webb), involved studying policy and regulatory documents and comparing them against the case studies of Hurricanes Katrina and Rita.

Staff feedback on the value of the curriculum—and their appreciation for the opportunity afforded to them—echoed that of the Analytic Services staff who had gone before them in nearly half of a century of education efforts: *extremely enthusiastic*.



Such enthusiasm soon turned the certificate program milestone into a touchstone—a significant point become *turning* point. In October 2006 Analytic Services began the Systems Engineering Master's Program, also in partnership with Stevens Institute. Applicants for the program, nominated by their Analytic Services' managers and selected by the executive leadership, stepped into more than an education. It was the beginning of a collaborative network to share lessons, explore business opportunities, and build a more cohesive corporate capability in systems thinking.

That *program* and *network* quickly effloresced into an institutional initiative. Working title: the "Strategic Thinking Institute."

Retitled *Applied Systems Thinking*, the "ASysT" Institute began in March of 2007. Analytic Services and the Stevens Institute intended for this new collaborative endeavor to do three things: establish a corporate reputation for thought leadership in applying systems thinking to complex security problems; enhance the differentiation of Analytic Services' *services* by integrating systems thinking into the corporate expertise; and provide ongoing opportunities for staff to develop their expertise in systems thinking.

Those three things—establishing a reputation for thought leadership, enhancing the differentiation of services, and providing opportunities for staff to develop their expertise—also applied to the collaborative endeavors between the Homeland Security Institute and its sponsor, the Department of Homeland Security, in 2007. Specifically, the institute's relationship with the under secretary for science and technology—the heart of the HSI-DHS collaboration—was going well.

It was a development of especial note for the HSI since a new under secretary had just come aboard in August of the previous year.

"If 2006 was the year of HSI's turning the corner, then 2007 was the year od HSI's gathering its first real momentum."

If 2006 was the year of HSI's turning the corner, then 2007 was the year of HSI's gathering its first real momentum—a stabler, more mature organization positioning itself to foster collaboration and cohesion among the disparate

elements of the homeland security community. They did so, first of all, with a changing of their own guard, as Dr. Phil Anderson came aboard as the institute's new director in the winter of 2007.

He wasn't the only new addition to the HSI; the strategy for a stronger, deeper HSI workforce that had spanned most of the two previous years expanded the institute crew to more than 100 personnel by the spring of 2007—a long way from the small cadre with which the institute originally began.



That "long way" wasn't growth as defined by staff numbers; it was growth into the mission of being *the* thought-leading institute dedicated to the DHS—growth from being given that name, to being found to live up to that name. The people of the HSI staff *made* a name for themselves, in other words. And with that talent on display, working the always-on-display challenges of the homeland's security, the talent grew.

Several of those staff made landmarks for the HSI in 2007. One HSI analyst, Mary McGinley, wrote a primer on radicalization that gained the distinction of becoming the first Analytic Services product distributed to all Department of Homeland Security employees.

These were signals of significant progress across the facets of the HSI-DHS relationship.

In its initial months of operation, the ASysT Institute had made significant progress across all of its program elements of *academics*, *research*, and *development activities*.

That progress would take on another form the following year; in true Analytic Services tradition, the *people* and their *work* for the nation's interests would be the focus of a new kind of award: the ASysT Prize, to be awarded annually for a significant achievement in applying systems thinking to a problem of U.S. national significance.

In the summer of 2008, the inaugural ASysT Prize was awarded to the Centers for Disease Control and Prevention (CDC) System Dynamics Collaborative Team, for their work in understanding the dynamic dimensions of health protection policies. (*Health care* was one of five areas of said problems that could be addressed and hence contend for the prize; *national security, homeland security, environment,* and *energy* were the others.) The team elected to donate the prize money to the CDC Foundation, an independent non-profit organization that forges partnerships between the CDC and others to fight threats to health and safety.

The focus of the winning team, ironically, was another throwback to Analytic Services' history. Almost thirty years prior was when the corporation first began work for the CDC, developing computer models for studying the epidemiology and control of a communicable disease. The work wasn't substantial in size for—or in its future involvement of—the corporation, but there it was: a part of Analytic Services' heritage.

And here it was, thirty years later, that heritage reincarnated—the commitment to serving the nation's interests appearing in yet another shape, a "new" old area, and going on.

And from where Analytic Services' leadership would look in 2008, this *systems thinking* part of its identity stood to be more than mere heritage...it looked to be the next horizon.



The Horizon From Here

With the Applied Systems Thinking Institute (ASysT) perhaps the foremost light illuminating the next horizon, as they look ahead to the nation's interests the scores of leadership and hundreds of professional staff of Analytic Services stand in a vessel that has weathered fifty years—and has been built for fifty more.

Should any turn and look back, as horizons past now ripple in the wake of their voyage full-speed ahead, it's not the darkness of a past best forgotten that they see. What they should see is a glow from those horizons past—a light coming from a body of work that, like the moon to the sun, is not a source of its own light but a reflector of light.

The source of that light, luminous to both what lies behind Analytic Services and what lies ahead, as they head for the next horizon, is the corporate body of people who have given Analytic Services its fifty-year-strong name by giving to the nation.

That light is a Bruce Adams, whose analysis work supports the A-10, an aircraft that Analytic Services helped design in the 1960s with the combat insight of former Flying Tiger Charlie Mott—a key weapon system still used by troops on the front line in Afghanistan and in Iraq.

That light is a Christina Scott, whose mastery of conference center operations and all things professional meeting continues the legacy of support that began in 1958—when a cadre of professional support staff from the Scientific Analysis Office came over with a cadre of professional analytic staff from that same office to create Analytic Services.

That light is nationally-renowned clinical epidemiologist Elin Gursky, whose expertise in biomedical research hearkens back to that late 1960s time when Analytic Services broke ground work in the health systems community.

That light is space expert Ron Turner, whose research continues to fuel the work in space that Analytic Services was practically built on—and has continued to stand on, in one form (e.g., advising President Kennedy in the early 1960s) or another (e.g., opening the Moscow office in the early 1990s), ever since then.

That light is Roberta Carlisle, whose U.S. nuclear weapons stockpile work stems from a subject that was among the first that Analytic Services studied (when the *stockpile* was only just beginning).

That light is also collaborative, a collective incandescence from media services guru Jack Butler, research analyst Thomas Kelley, and project manager Pete Champagne, whose teaming on latter 2000s work like expeditionary combat skills training manuals for the U.S. Army Military Police recalls Analytic Services' work for the Army Materiel Command—



reviewing Army laboratories (the analytical staff work) then formally publishing the results (the support staff work)—more than twenty years earlier.

That light is reflected in a Boyd Award, named for board member Alan Boyd, who by his own admission—while reflecting on the strength of Analytic Services' entrepreneurial culture throughout its history—said, "Someone comes up with an idea, that's a case for *applause*, congratulations, acknowledgment...and that's a *big* difference between ANSER and a lot of other organizations."

That light is also reflected in the Oliver Award, also named for a board member, former Chairman Bob Oliver, who shared Mr. Boyd's reflection by noting that the continuing strength of Analytic Services is "People, people, people.... You need unselfish, wise people at the board level. You need [similar] people at the management level...dealing with an increasingly diverse and complicated set of clients. And [you must] make certain that you've invested in the right people at the staff level."

That light is even reflected in places one might not think to look for it: the ANSER web ("AWEB"), for example, an intranet now ubiquitous enough in the company's processes to make one forget that Analytic Services was created in an age before e-mail or the Internet. An age when the staff could talk to each other in a single hallway.

Many staff now walk the halls of the people they work for, bearing the culture, the philosophy, the *spirit* of Analytic Services as they go. And the AWEB attempts to connect them, a hallway of the twenty-first century.



As the corporate leadership forged a five-year outlook last year, one of the observations made in looking over the horizon was that the federal government would continue to struggle with policies, processes, and structures created for a different world.

The events of 9/11. The forces of globalization. The recognition of the fragility of critical national infrastructures. These were some of the factors of that *difference* in this twenty-first century world.

Created in the "old" world of the twentieth century, Analytic Services faced a different world then. The events of the Cold War. The forces of diversification. The recognition of the



fragility of the Nation—when the phrase *homeland security* was first inching into the shadow of the longstanding phrase *national security*. The corporation did more than survive that world; it succeeded in that world.

There were failures, but that was part of the success. That *has* to be part of a fifty-year success.

Not a success of the worn-on-the-sleeve variety, a casting of the "Analytic Services" name in lights. Ultimately, the success of Analytic Services was of the nameless kind—the countless contributions to the public safety and security of the United States. If there was a name to any one success, it was the name of the Analytic Services staffer (analytical *or* functional) behind that success.

If there was anything to the success of Analytic Services on behalf of the Nation, it was the people of the corporation, working for the Nation. "Our emphasis has always been: 'Client, you gave me this problem to do. That's fine, I'll do that—do it well. But if that's all I do, I'm not serving you well," Dr. Mariño, now the chief operating officer for Analytic Services, recently reflected on what keeps this corporation ticking: the minds and hearts of its staff.

"So our staff," he continued, "has always had the perspective, What is the next thing that is going to come and bite [the client], what is the next problem that [they're] going to have to address...? That's a natural part of the analytical process."

And that's a natural part of Analytic Services.

That was true then, in the old twentieth century world. It is still true now, in this very new twenty-first century world.

This is Analytic Services succeeding in that new world, still helping the U.S. government struggle with policies, processes, and structures created for that world.

This is Analytic Services informing decisions that shape the Nation's future.

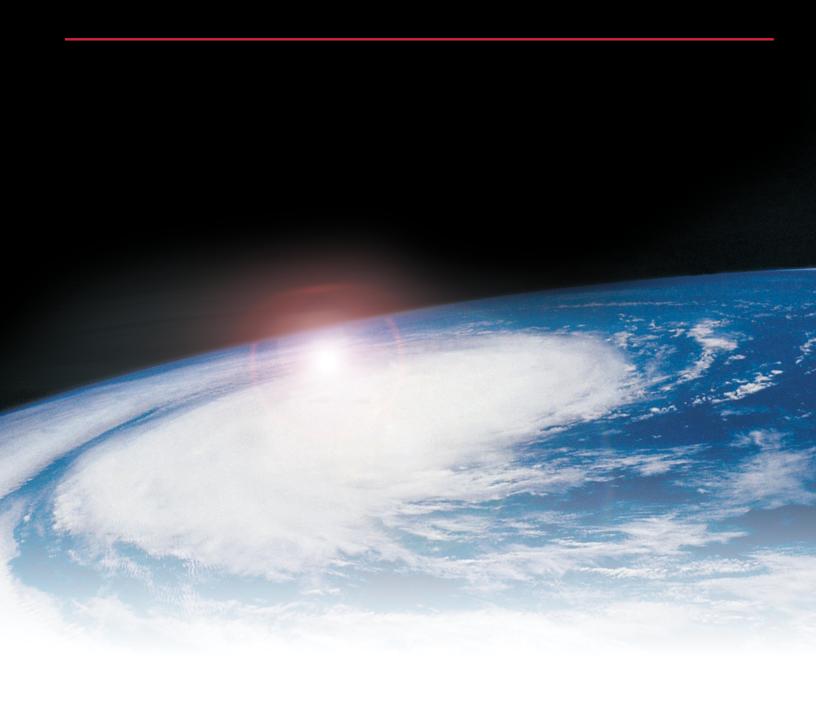
This is Analytic Services.

And to summarize the expressions of many people who have been here—to quote Analytic Services President Dr. David—speaking to those who might one day be here to work tough problems in the nation's interest...to impact the nation...even to make a difference in oneself through the challenge in, the passion for, and the growing through such work for the nation:

You couldn't find a better place to be.



A HISTORY OF ANALYTIC SERVICES INC.



ANALYTIC SERVICES INC.







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