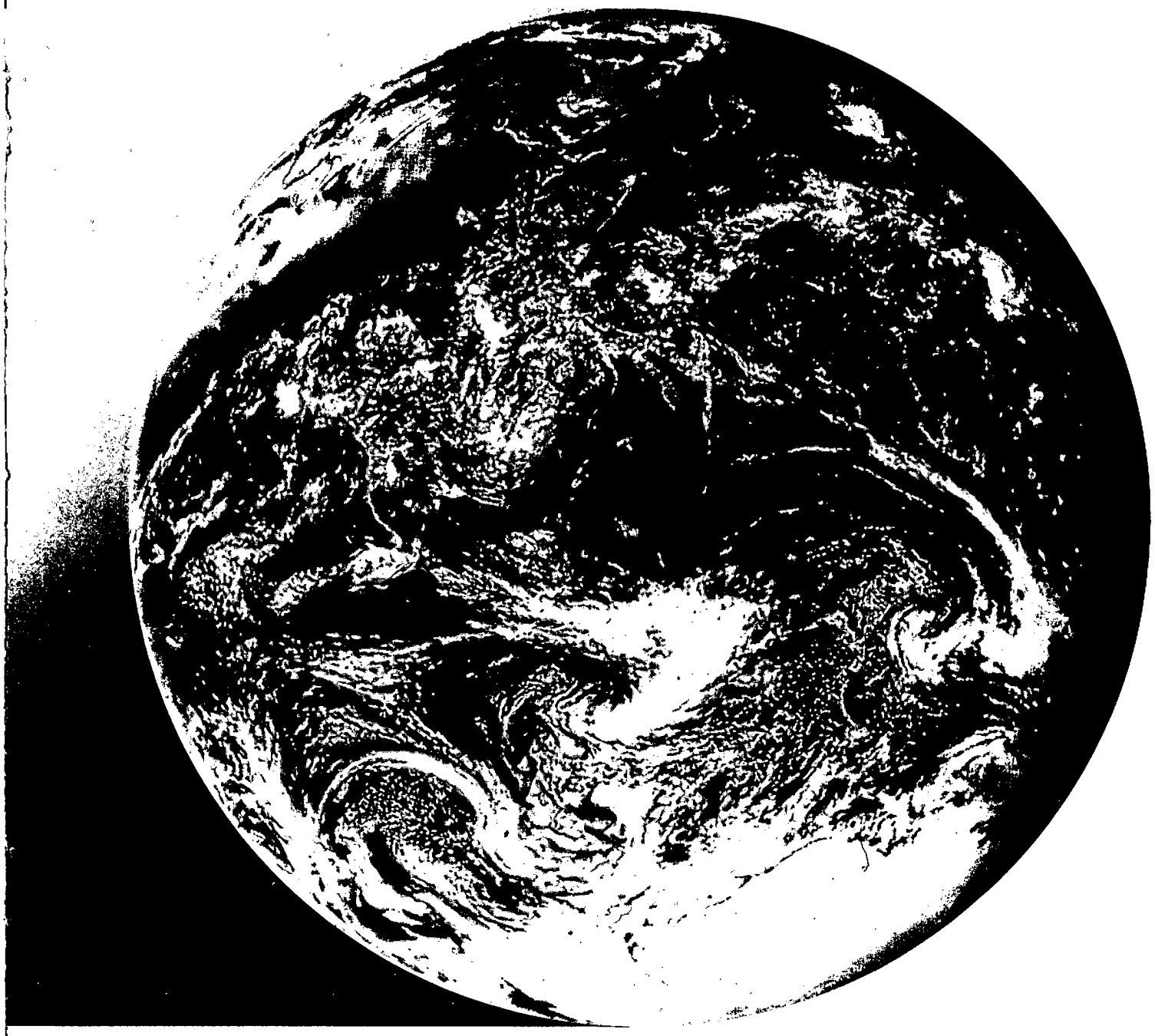
Directorate of Science and Technology

Central Intelligence Agency



Careers That Can Make a Difference in Our World

Working at the leading edge of technology

You have invested time, money, and effort in developing your career potential. Now, you want a career in which you can be sure that your potential will be fulfilled — and rewarded. The Central Intelligence Agency's Directorate of Science and Technology offers you that and more. We offer a chance to make a positive contribution to national security and world peace, a chance to embark on a career that can make a difference.

Your professional career with the Directorate of Science and Technology (DS&T) will often mean exploring technology that is well beyond the state of the art. As a DS&T professional, you may be working to solve an immediate problem . . . you may be applying personal initiative to develop technology that will answer an anticipated need . . . or you may be working on long-range concepts that are far beyond the purview of academia and private industry. We do all these things and more. It is an exciting environment, full of enthusiasm that comes naturally when scientific and technical professionals are encouraged to put their creativity and innovation to full use.

The Directorate of Science and Technology (DS&T) is the technical arm of the CIA.

The Directorate of Science and Technology is one of the four major components of the Central Intelligence Agency. The other three directorates have the primary roles in operations, analysis, and administration. The DS&T has a wide range of responsibilities in the development and application of technology to meet intelligence needs. This includes exploratory research and development; the design, development, and operation of both large-scale systems and specialized equipment; and the collection, processing, and analysis of print, broadcast, photographic, and signals intelligence.

The historical role of technology in intelligence.

Collecting and evaluating information about one's environment and the threats it may contain have always been critical to man's survival. As early as the 5th century B.C., the Chinese military strategist Sun Tzu recognized the importance of good intelligence. "To win 100 battles is not the acme of skill. To find security without fighting is the acme of skill."

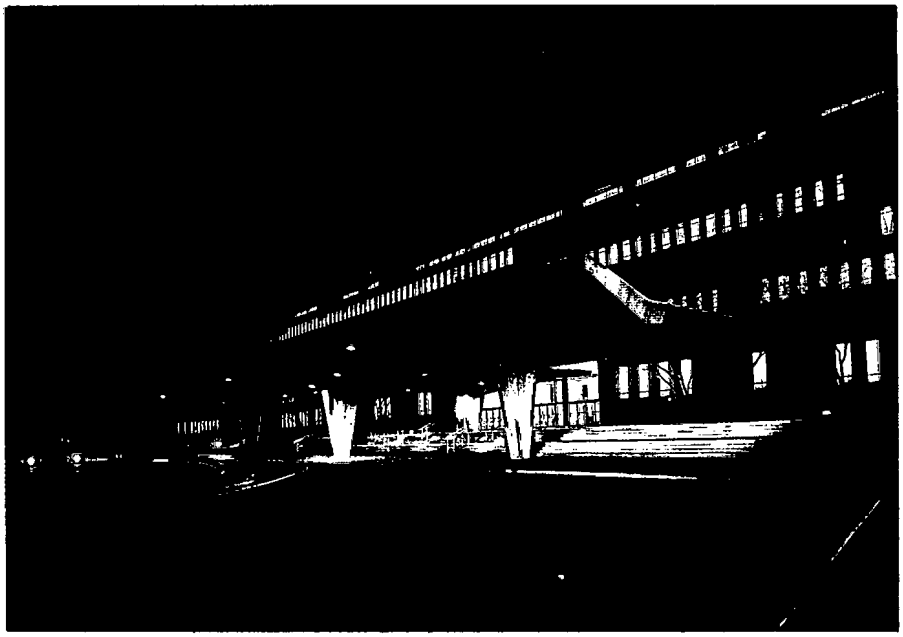
Throughout history, as technology has developed it has been applied to the intelligence-gathering process. Intelligence professionals were assisted by developments such as code-breaking techniques and tools, invisible ink, the telescope, camera, and telegraph. Basically, however, the technology was simple and the intelligence was focused on military concerns until well into the 1900s.

Since the establishment, in 1947, of the Central Intelligence Agency, the world has changed considerably. From an initial military focus, the intelligence effort has expanded to all areas of international concern. More and more data are required to effectively evaluate the capabilities, intentions, and resources of potential adversaries. The technological revolution since the founding of the Agency has provided the means to collect and evaluate this type of information. The DS&T has grown from a small part of the CIA to a major directorate with the mission of devising better means of collecting and using intelligence via technical means, against both current and future threats.

The DS&T plays a crucial part in the intelligence process.

The "business" of any intelligence organization is the collection, processing, analysis, and presentation of information. Within the CIA, the Directorate of Science and Technology has a role in each of these intelligence functions. We conceptualize and develop new technologies to aid in intelligence collection and to support agents in the field. We apply the most advanced technical innovations to aid in information processing and analysis, and we develop advanced technical means to get the intelligence and analysis to senior policymakers in the most useful form.

DS&T professionals support the highest echelons of the U.S. Government. All national policymakers depend upon reliable and comprehensive information about world events. The technical means developed within the DS&T enhance the quality of the collection, analysis, and presentation of the information upon which decisions of major importance are founded.



How the DS&T is organized.

The diverse activities of the DS&T are interrelated and may be divided into two main functions: (1) information collection, processing, and analysis, and (2) the development of supporting technology. The first involves information gathered from various sources — foreign broadcast and print media, signals, and photography. The other main category of DS&T activities involves the conception, development, and production of the most advanced technologies and systems to support the collection, processing, and analysis of information.

A challenging career with unequaled opportunities

In the DS&T, you will be working with the best—the best people in a wide range of technical and scientific disciplines and in the best environment available. You will be dealing with technologies as advanced as, and in some cases more advanced than, any found in private industry or academia, while interacting with top university and industry specialists. Many DS&T staff members participate in interagency intelligence committees and working groups with high visibility within the Intelligence Community.

Advantages are unique ... and opportunities for advancement are many.

While working with the best people and resources, you will also find that the DS&T allows its professionals a larger scope of responsibility earlier than is generally the case in private industry. DS&T officers are often project managers, guiding their programs from conception to application.

There may be fewer constraints than in the commercial sector, because national security often calls for one-of-a-kind, limited-production developments. Unique problems demand unique solutions. And our engineers and other professionals have the most advanced resources and the responsibility to use them in achieving those solutions.

Along with early and comprehensive responsibility can come rapid advancement and many other advantages:

- Promotions are competitive and based on your accomplishments. You are given additional responsibilities as soon as you are ready to assume them.
- You can select the career direction you prefer. You may specialize in one field or subject, expand your expertise to cover several fields, or concentrate on developing managerial skills. And you may switch career directions as your career progresses and your interests change.
- You will be working on important projects at the leading edge of your field of interest.
- You may have direct contact with senior U.S. officials and policymakers as an important part of your job.
- You will associate with senior experts in your field, not only at the CIA but also in other government agencies, in universities, and in private industry.
- You will have access to extensive information.
- You may have opportunities for travel and overseas assignment.
- Some persons who join us directly from college will enter the Career Training Program, an intensive one-year study of the CIA, the Intelligence Community, and the intelligence process. All career trainees receive instruction in the specialties of each of the directorates and in-depth training in the work of the directorate to which they will be assigned. DS&T trainees take a three-week directorate course designed to convey a sense of technical issues and increase awareness of the DS&T's tasks and responsibilities. Career trainees also serve several interim assignments, each ten to twelve weeks, in Agency offices. The program is conducted primarily in the Washington, D.C. metropolitan area.

Career benefits and continuing training are excellent.

We seek to offer you salaries and career benefits competitive with those of academic institutions and private industry. There is ample provision for rapid advancement based upon merit. There are also several awards systems which provide for additional recognition of exceptional performance.

Staff members participate in excellent life and health insurance programs and benefit from generous provisions for annual leave and sick leave. Upon retirement, you will be eligible for benefits under the Federal Employee Retirement System. Positions that involve overseas assignment include pay differentials, cost-of-living and housing allowances, 100% medical and hospitalization coverage, educational allowances for children, and liberal home leave.

The DS&T supports graduate study, provides a variety of training courses throughout your career, and offers opportunities for sabbaticals.

You learn on the job by tackling increasingly demanding projects and through interaction with senior colleagues and national leaders. You also increase your knowledge and capabilities by formal training. We encourage and support advanced study at universities and offer you a wide range of specialized courses given internally. This emphasis on self-improvement and professional development continues throughout your career.

As part of your training and career growth, you may have the opportunity for foreign travel or for temporary assignment abroad, although willingness to serve abroad is not a requirement for most positions in the DS&T.

Many of our professionals have experience in private industry, academia, or other government agencies. Interchange with outside organizations for purposes of career growth and professional skill improvement is encouraged.

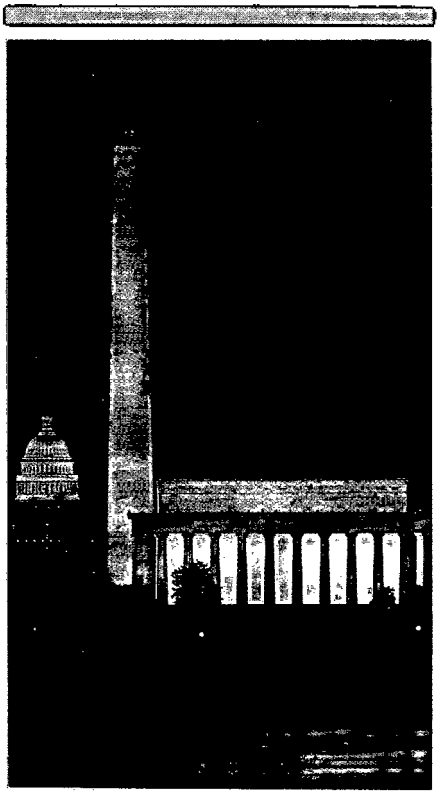
DS&T staff members actively participate in professional organizations, conferences, and symposia, and may sometimes publish the results of personal research.

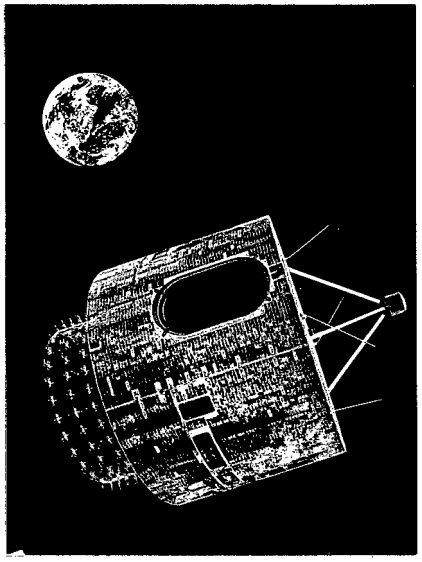
Washington, D.C. is your home base.

The CIA Headquarters is located in suburban Virginia, only seven miles from Washington, D.C. Most DS&T offices are outside the headquarters area, at several locations in Washington and Virginia. There is a wide choice of where to live — in the city of Washington, in the adjacent suburbs of Virginia or Maryland, or in the countryside.

Washington, D.C., one of the most beautiful cities in the country, is a highly cosmopolitan area. It is home to several fine universities, the Smithsonian Institution, and many other excellent museums and art galleries. Theater and music in Washington at the Kennedy Center, Wolf Trap, the National Theater, and elsewhere are second to none.

Washington and its surroundings have fine dining, shopping, and top-quality sports teams, both college and professional. Cultural, historical, and entertainment activities abound . . . and the seashore or mountains are only a few hours away.





Challenging positions are available in many disciplines.

The Directorate of Science and Technology seeks applicants from a wide variety of disciplines and experience. Areas of opportunity in many of these disciplines are described in detail on subsequent pages. If you have a bachelor's degree, master's degree, or a doctorate in a scientific or technical subject — or skills and experience in any of the other areas or disciplines in the following list — the chances are good that we can offer you an interesting career.

Automated Manufacturing/ CAD/CAM
Business Administration
Chemistry/Chemical Engineering
Communications
Computer Science
—ADP
—artificial intelligence
—data base management
—expert systems
—hardware and software design
—networking
—operations
—programming
—systems analysis
Contract/Project Management
Crafts & Trades:
plastics, leather, wood, tools and dies, printing, engraving, art, papermaking, bookbinding, ceramics, modelmaking, inks and dyes, cabinetmaking
Economics/Econometrics
Electro-optics
Engineering
—aeronautical
—aerospace
—civil
—design
—electrical/electronic
—general
—human factors
—industrial
—mechanical
—nuclear
—structural
Foreign Area Studies
Geography
Graphic Design/Illustration
History
Imagery Analysis
International Relations
Journalism
Languages
Laser Technology
Library/Documentation Science
Life Sciences
Materials Science
Mathematics
Medicine
Microelectronics
Military Science
Modeling and Simulation
Photogrammetry
Photography/Video
Physics
Political Science
Power Source/Storage Technology
Psychology
Radar/Antenna Design
Satellite Technology
Sensing Technology
Signal Processing/Analysis
Social Science
Telemetry

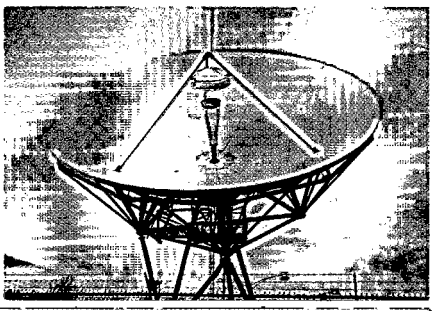
Information collection and processing put critical facts into the hands of policymakers.

The Directorate of Science and Technology plays a central role in the intelligence process in a number of ways, one of which involves worldwide technical collection, processing, and analysis of information. This information — the basic ingredient of all intelligence — comes in a variety of forms.

International open-media information processing provides an overview.

All foreign print and broadcast information has potential intelligence value. Radio, television, newspapers, and periodicals are openly published or broadcast internationally every day. This information is carefully monitored through high-frequency receivers, satellite channels, subscriptions, news agencies, wire services, foreign data bases, and other overt means. Articles, broadcasts, and books selected for translation and transmission to the United States are part of a critical information pipeline for national policymakers and intelligence analysts.

It is the role of the Foreign Broadcast Information Service (FBIS) to monitor, select, process, translate, edit, analyze, and disseminate a huge volume of collected information. The information processed every day is distributed via an unclassified wire service, a daily report, serial reports, and other specialized publications.



People from many disciplines are involved, including language officers, editors, analysts, communications specialists, data base managers, experts in automated data base search and retrieval, and engineers and technicians for maintenance of overseas installations. Overseas travel or assignment is a part of many FBIS career positions.

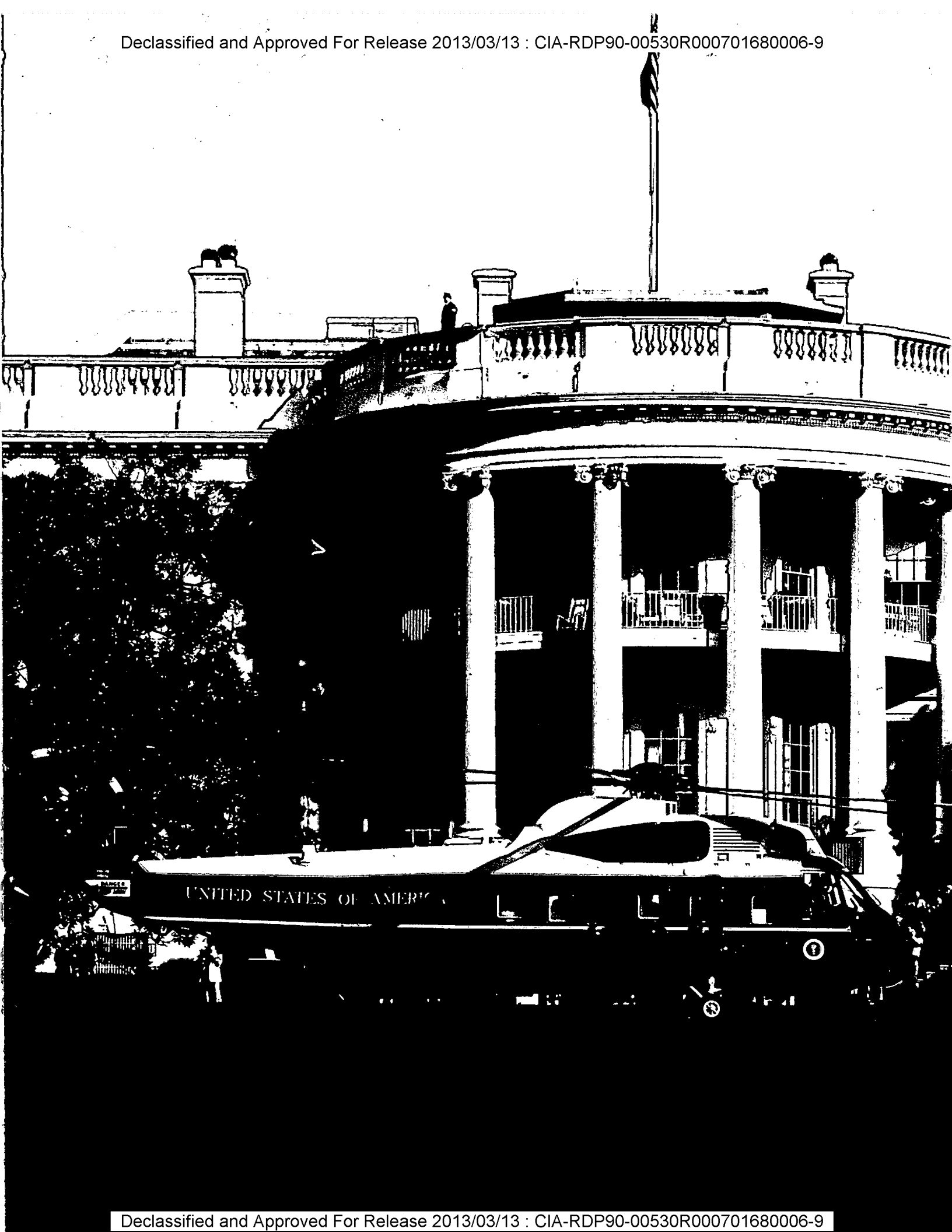
Worldwide signal collection and analysis broaden our world view.

Signals intelligence is a specialized science. It requires the collection, processing, and analysis of signals, inadvertent electromagnetic radiation, and other signals-related data, and being responsive to foreign technological advances. Signals intelligence, a vital element in maintaining our knowledge of the current state of world affairs, is a product of the Office of SIGINT Operations (OSO).

The OSO mission demands that we work at the forefront of appropriate technologies. We develop, operate, and maintain highly sophisticated equipment that allows us to perform signal collection, processing, and analysis with maximum reliability and efficiency.

Career positions include electronic engineers, physicists, computer programmers, signal operators, electronic technicians, operations analysts, mathematicians, signal analysts, and linguists. Opportunities for foreign travel or assignment exist for selected positions.

Signals intelligence is of direct concern to the President, National Security Council, Joint Chiefs of Staff, and others involved in the shaping of national policy, as well as to analysts throughout the Intelligence Community responsible for providing multisource information and analysis on issues of national security.



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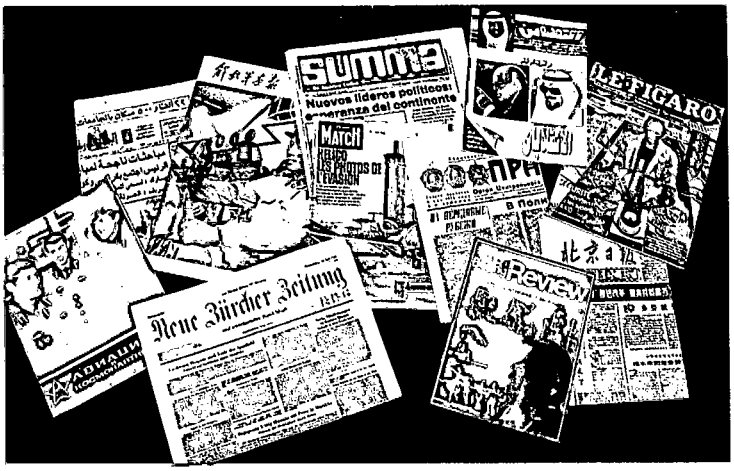
Comprehensive imagery interpretation and analysis help clarify our picture of world affairs.

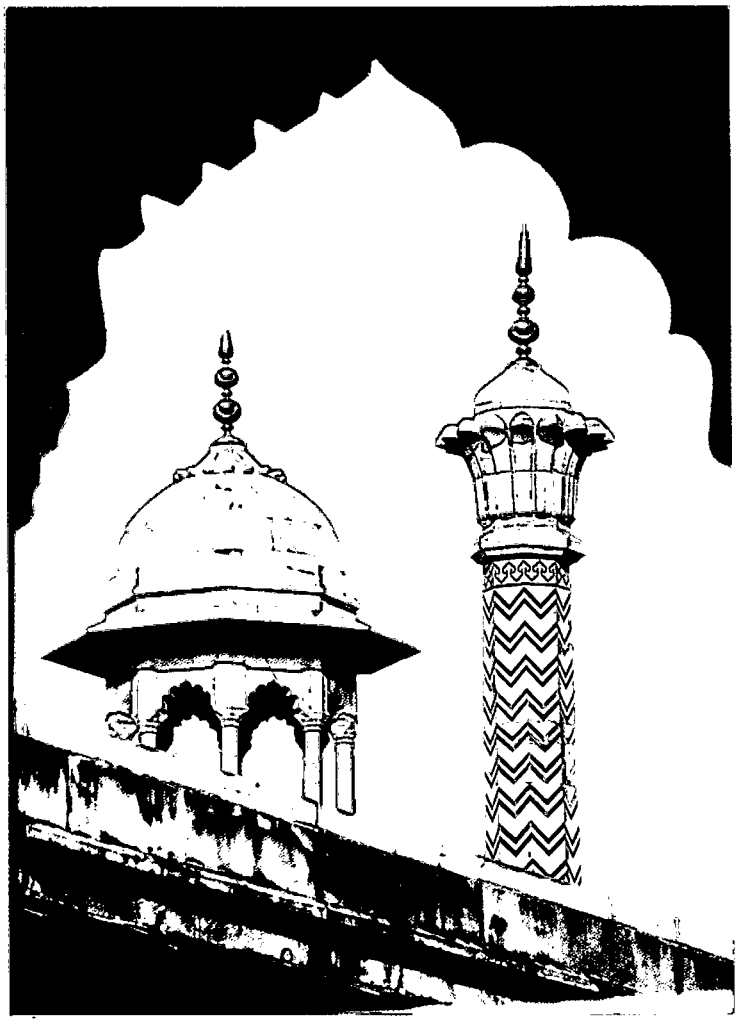
Visual imagery also plays a vital role in the intelligence process. The images come in all forms and from a wide array of sources — newspapers, handheld cameras, aircraft, television, and electromagnetic devices. It is the role of the National Photographic Interpretation Center (NPIC) to analyze imagery from these varied sources and to provide basic intelligence data on crucial subjects such as military forces, military equipment production, arms control, and natural disasters.

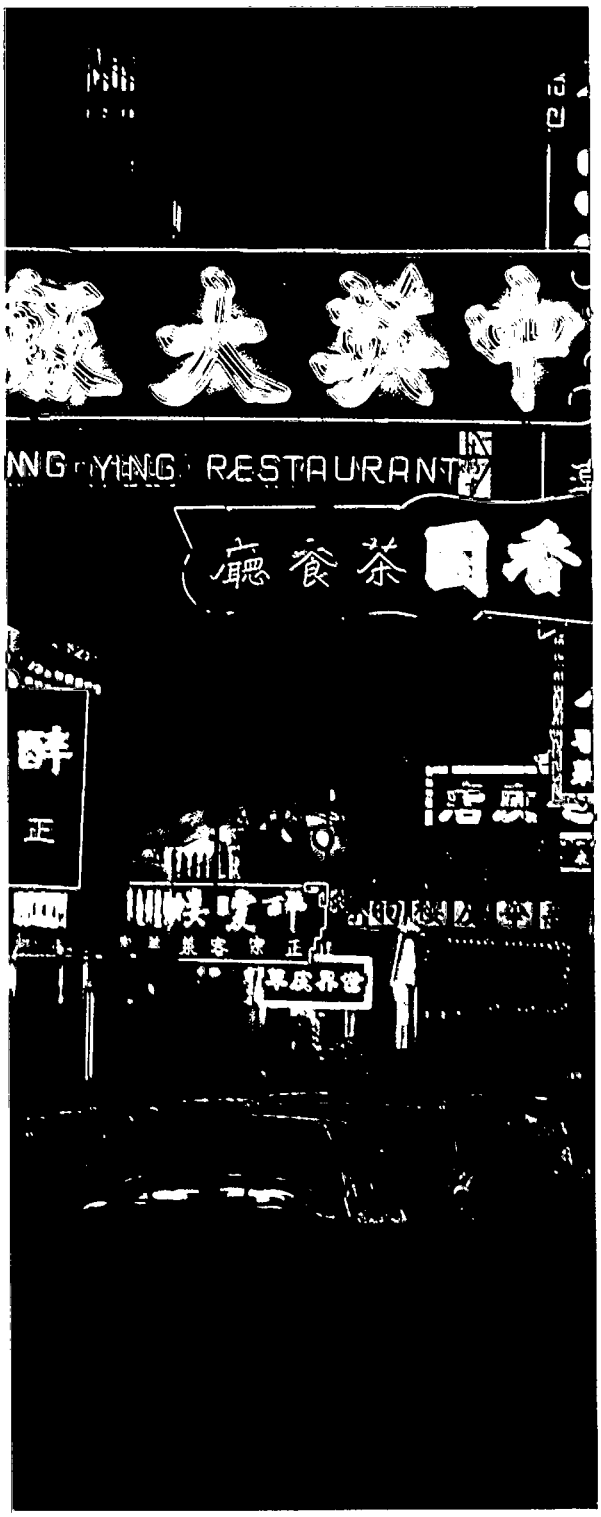
Imagery analysts have the job of interpreting and evaluating the significance of the imagery received. Our analysts are largely liberal arts and social science generalists, with backgrounds in international affairs, economics, political science, history, geography, earth sciences, area studies, and other disciplines. The imagery analyst develops expertise in specific issues and geographic regions, coordinating analyses with other experts in the Intelligence Community and contributing to published intelligence reports.

Imagery scientists are needed to enhance the quality of some imagery, to conduct engineering studies on imaging systems and equipment, to provide measurements from the imagery, and to develop, modify, and maintain specialized equipment. These tasks involve work with the latest image science equipment, including measuring comparators, image digitizers, digital image displays, and advanced computers. Image science positions require a background in mathematics, electrical and electronic engineering, photographic science, statistics, photogrammetry, remote sensing, physics, computer science, or digital signal processing.

Additional personnel are needed to support the analytical and reporting tasks of NPIC. Positions are available for individuals with varied academic and work backgrounds, including computer scientists, data base managers, photographers, graphic artists, editors, librarians, researchers, and model makers. All these professionals have many opportunities within NPIC to exercise innovative approaches to the handling and analysis of large amounts of critical information.



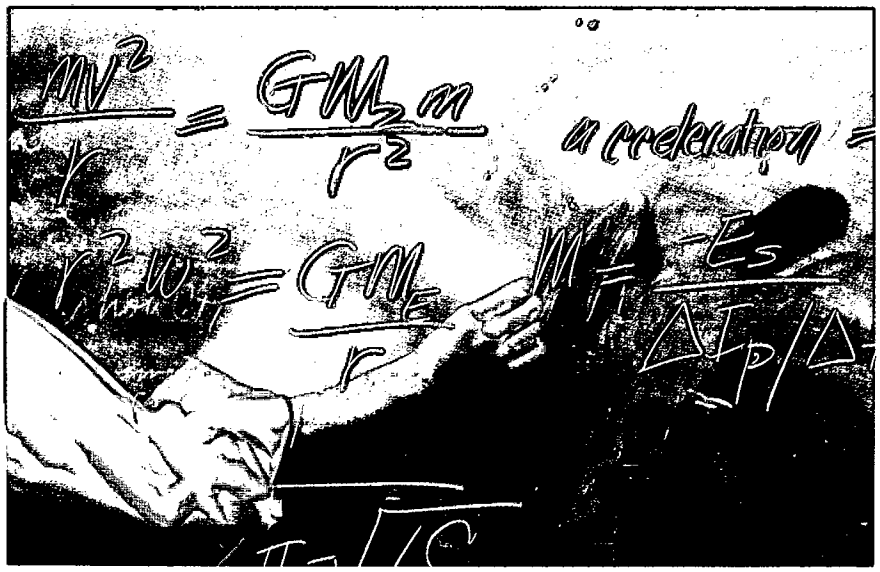




The development of supporting technology is the foundation of technical intelligence collection.

Technology is constantly changing, evolving, and expanding. The activities of DS&T professionals are prominent in this process of change, where working with concepts and technologies beyond the state of the art is our norm.

DS&T activities in technology development are diverse, ranging from long-term research and development to the creation of technical support tools for case officers and agents in the field.



Long-term basic and applied research develops tomorrow's technology.

Although every office in the Directorate of Science and Technology pursues some research, the role of the Office of Research and Development (ORD) is unique. ORD is the "corporate" research arm of the Central Intelligence Agency, serving all of the CIA and answering the future technology needs of the entire Intelligence Community.

The role of ORD is to bring today's and tomorrow's technology to bear in fulfilling the overall mission of the CIA. ORD provides the methods, techniques, and systems concepts and designs to support the varied functions of intelligence. We perform exploratory research, pushing beyond the state of the art, and developing and applying technologies and equipment more advanced than anything commercially available. Like all the work within the DS&T, it is highly specialized, but the frontiers are open-ended. Creativity, innovation, and imagination are prime requirements.

The work of ORD involves applied research, development, testing, and evaluation of a wide spectrum of technologies and methodologies. These include the physical sciences, communications, sensors, semiconductor applications, artificial intelligence, image understanding, operations research, process modeling, data base management, high-speed computing, and decision making and inference. Any and all technologies with a potential intelligence function are pursued, generally to the prototype or demonstration of feasibility level. This involves close project management contact with many of the largest private industry contractors in the nation and the opportunity to work with the latest equipment and the most expert people in government, academia, and business. Because of the advanced level of work in ORD, graduate degrees are strongly preferred, as is professional experience.

Systems development and engineering take programs from concept to product.

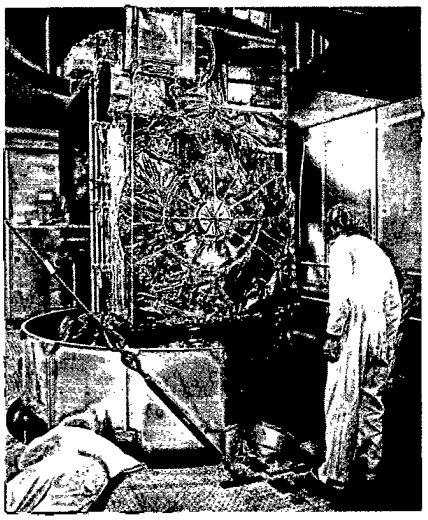
The Office of Development and Engineering (OD&E) pursues research and development with specific and often immediate applications to meet the needs of national-level policymakers. OD&E provides total systems development for major systems —from requirements definition through design, engineering, and testing and evaluation, to implementation, operation, and even support logistics and maintenance. These are generally large state-of-the-art systems that are not available commercially or in private industry.

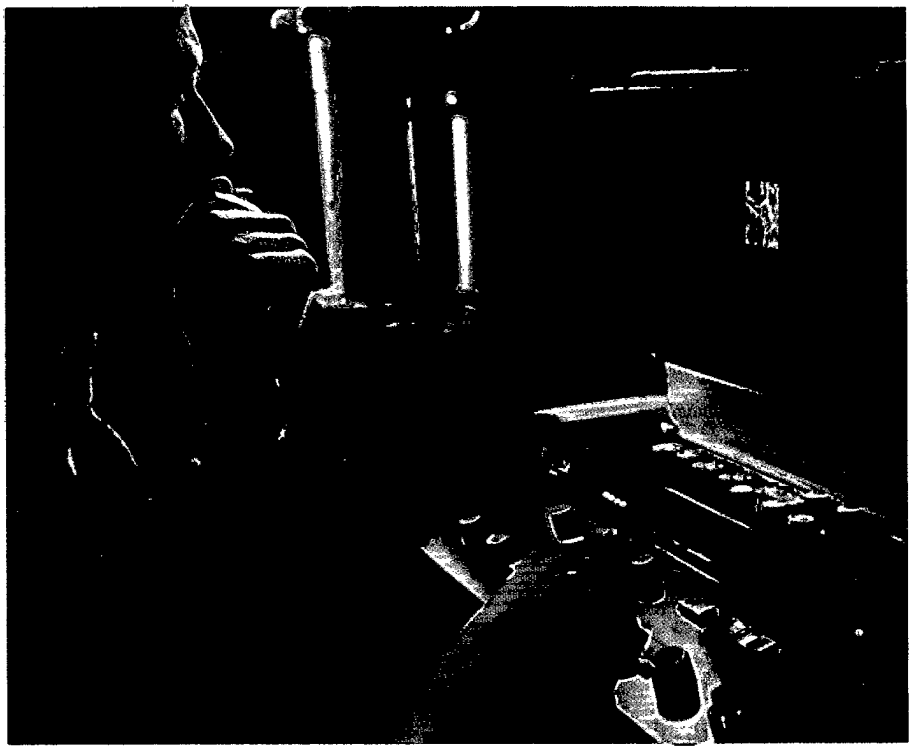
It is exciting and demanding work with a very high level of technical challenge. OD&E requires a wide variety of disciplines in advanced areas such as: laser communications, digital imagery processing, real time data collection and processing, electro-optics, advanced signal collection, artificial intelligence, advanced antenna design, mass data storage and retrieval, and large systems modeling and simulation. Our work includes totally new concepts and systems as well as system upgrades.

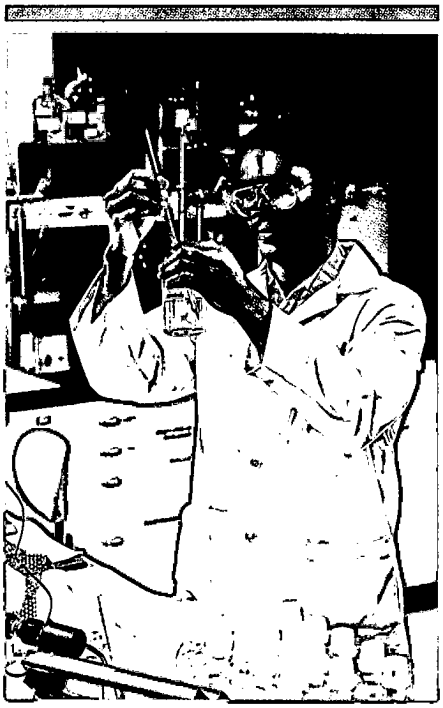
Because we work closely with many of the most highly regarded private contractors in the nation, scientific and technical professionals who have contract management skills are highly valued.

Much is expected, but much is offered in return, including early responsibility and a chance to work on very large and advanced systems from conception to completion. Our engineers have more independence than in most private industry positions; they operate with authority for not only technical matters but scheduling and production changes as well.

Our challenge is to anticipate and answer technical requirements of the national Intelligence Community. It's an uncommon challenge for the professional with uncommon ambition.







Technology application and modification support immediate intelligence-collection needs.

Despite the huge advances in technical collection systems, human intelligence-gathering activities remain an indispensable part of the intelligence process. To increase the scope, effectiveness, and safety of such activities through technical means is the role of the Office of Technical Services (OTS).

Like other DS&T offices, the work of OTS involves development and engineering, both in our own advanced facilities and through outside contractors. We oversee the design, development, evaluation, and deployment of specialized and unique equipment to ensure it will withstand rigorous field and operating conditions. Our scientific and technical professionals involved in this effort are active in areas of analog, digital, and satellite communications, still photography, video and image enhancement, chemical imagery, coding and decoding devices, and various aspects of modern computer technology.

Other OTS personnel apply a wide variety of crafts and skills in support of the collection process. Graphic artists, locksmiths, wood technologists, and experts in working with plastics, leather, paper, and machine tools all contribute to the OTS effort — as do other professionals with backgrounds in languages, international relations, military skills, document analysis, and many other specialties.

OTS is a fast-paced, dynamic environment with particular appeal to experienced engineers as well as to recent graduates who want hands-on experience in basic engineering and other disciplines. OTS offers extensive in-house training and encourages its officers to seek outside educational opportunities. Overseas assignments are available for some OTS personnel. OTS officers must be inventive, flexible, and able to think on their feet — technical specialists with an interest in hands-on problem solving. The work is demanding but never boring.

Unique requirements call for unique individuals.

The challenging work undertaken by all the DS&T offices is unlike what you are likely to find anywhere else. It offers many opportunities for individual initiative, as well as creative teamwork, applied in an exciting environment where your personal responsibility and involvement are at their maximum. It is work that is critical to our national security and that provides great personal satisfaction.

Explore a career with the Directorate of Science and Technology.

Experienced professionals and college students who are interested in a career with the DS&T are invited to apply for employment.

To qualify for a position, you must be a native or naturalized U.S. citizen. If you are married, there is a requirement that your spouse has, or is acquiring, U.S. citizenship.

Because of the nature of our responsibilities, we must conduct a security investigation of each applicant. For this reason, it is important that you contact us as far ahead of the time you want to start working as possible.

To apply, write to the Director of Personnel, Central Intelligence Agency, Washington, D.C. 20505. Enclose a resume of your education and work experience and request preliminary application forms.

Or, if you are in college, see your Placement Officer (preferably six to nine months before graduation) and request an interview with the CIA representative who visits your campus or whose regional office may be situated nearby.

We encourage you to investigate the personal and professional potential a career with the DS&T may hold for you. If you are the right person for the unique challenges and opportunities we offer, we are sure you can't find a career like it anywhere else.

CIA is an Equal Opportunity Employer.

. . . where your career is America's strength.

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