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GENEVA

**STANDING COMMITTEE ON INFORMATION TECHNOLOGIES**

# ANNUAL TECHNICAL REPORT

# 1999

# ON PATENT INFORMATION ACTIVITIES*

submitted by the

**UNITED STATES OF AMERICA**

An annual series of reports on the patent information activities
of members of the Standing Committee on Information Technologies

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* – The term "patent" covers utility models and SPCs.
– Information related to design patent activities reported by industrial property offices issuing design patents is included in the series of documents SCIT/ATR/ID.

**UNITED STATES OF AMERICA**
**ANNUAL TECHNICAL REPORT ON PATENT INFORMATION ACTIVITIES IN 1999**

## I. Evolution of patent activities:

Changes experienced in terms of application filings and grants with respect to the previous year

In calendar year 1999, the USPTO granted 153,489 utility patents, an increase of 4 percent over the number of grants for 1998. The share of grants having foreign origin, as determined by the residence of the first-named inventor, was 45.3 percent for 1999, down from 45.6 percent for 1998. International Business Machines Corporation continued as the top patenting organization, receiving 2,756 utility patents for the year. NEC Corporation was second, receiving 1,842 utility patents and Canon Kabushiki Kaisha was third, with 1,795 utility patents.

There were 270,187 utility patent applications filed at the USPTO in 1999, an eleven percent increase as compared to 1998. The share of applications having foreign origin, as determined by the residence of the first-named inventor, is estimated to be 45 percent, up slightly from 44 percent for 1998.

Trends or areas experiencing rapid changes with respect to the previous year

In 1999, the number of utility patent grants relating to the Internet increased by 81 percent, the number of grants in 'Data Processing: Database and File Management, Data Structures, or Document Processing' increased by 10 percent, the number of grants in 'Data Processing: Financial, Business Practice, Management, or Cost/Price Determination' increased by 33 percent, and the number of grants in 'DNA or RNA fragments or modified forms thereof (e.g. genes, etc.)' increased by 14 percent over the number of grants for 1998. These technology areas have shown rapid growth in recent years.

## II. Matters concerning the generation, reproduction, distribution and use of primary and secondary sources of patent information:

Publishing, printing, copying (main types of publications of the office in the field of patent information, etc.)

Data capture procedures were changed during 1999. Approximately 95% of the data needed to publish the patent is captured after allowance but before fee payment. After fee payment, the remaining 5% is captured. This procedure has allowed the PTO to be in position to issue the patents in a more timely manner.

Main types of announcements of the Office in the field of patent information

A wide variety of announcements and notices are provided on a weekly basis in the Official Gazette of the USPTO. The first issue each year presents a consolidated listing of the more important notices and rule changes published in the Official Gazette since July 1, 1964. PCT information, notices of maintenance fees payable and notices of expiration of patents due to failure to pay maintenance fees are among the notices provided on a weekly basis.

Mass storage media used (paper, microforms, optical storage, etc.)

In 1996, the USPTO began incorporating magnetic rewritable storage devices into its standard operations to replace older optical storage technology. The magnetic devices hold all patent data, and are used as a pre-load area for volume reproduction of patent data via high speed printers. The use of the faster responding devices has dramatically improved search system performance. The "redundant array of disk" technology used by the magnetic devices has substantially improved data availability. During 1996-1999 USPTO acquired the necessary amounts of magnetic storage to process terabytes of patent, trademark, and other business data electronically. At the end of 1999 all the optical storage devices had been replaced. Last year, USPTO established an Internet site with access to text and images of patents from 1976 forward. Over 2 terabytes of image data stored on these devices at USPTO is accessible from the Internet. 800 gigabytes of patent full text data and 70 gigabytes of patent bibliographic data reside on remote storage in New York and North Carolina. Most recently, USPTO has initiated the acquisition of an additional 2 terabytes of storage to add images of all US patents from 1790 forward on the Internet site.

Word processing and office automation

Office Action Correspondence Subsystem (OACS)

The Office Action Correspondence Subsystem (OACS) was introduced in May 1999. OACS utilizes Visual Basic command language integrated within Microsoft Office 97 to enable creation of written correspondence for both domestic and international applications. Examiners now have a standardized interface to create domestic application correspondence, which includes standard USPTO forms, text editable data entry fields, and word processing created documents. The interface allows creation of international application correspondence, including PCT forms, text editable data entry fields, and word processing created documents. OACS is also integrated with PALM for extraction of bibliographic data into both the appropriate correspondence element and also into a separately created, local structured records management Microsoft Access database. Additional enhancements and performance improvements are being planned.

PCT Operations Workflow and Electronic Review (POWER)

The first phase of the PCT Operations Workflow and Electronic Review (POWER) system has been installed within the Office of PCT Operations and is currently being used to process a small fraction of new international applications and their follow-on sheets. Incoming Chapter I applications are scanned into POWER, bibliographic data is manually transcribed or copied from a PCT EASY diskette and the electronic file thus created is routed using an automatic workflow system. The system also supports preparation of correspondence, monitoring of actions due and preparation of tracking and performance reports. Over the course of the next few months, the number of applications will be increased until around November 2000, when 100% participation is expected to be achieved. The Phase 2 release of POWER, which is due out in the March of 2001 will handle the formalities processing of Chapter II applications. Phase 3, scheduled for the Spring of 2001 will introduce formalities processing of National Stage applications and deal with the receipt and transmission of PCT information in electronic form.

Tools for Electronic Application Management (TEAM)

In the area of electronic examination the Office has been working on the Tools for Electronic Application Management (TEAM) system which is a continuation of the prototypes originally done under the PREP project. TEAM activity, adversely affected by budget concerns resulting from enactment of the American Inventors Protection Act (AIPA) legislation, has been delayed. TEAM has refocused on independent modular activities that may be incrementally deployed, yet which are essential in the development of the ability to enable complete electronic examination. The first module, identified as TEAM LP (lab prototype), addresses the ability to present a pictorial display of an application's claims with defined definitions is anticipated to be available in March 2001. TEAM XP, presenting electronic document management and workflow management functionality upon an electronic file wrapper (EFW), will be prototyped in 2001. TEAM XP will also begin integration to the search systems and the office action generating system. The current plan is to schedule an enhancement release of TEAM in 2000 and to deploy TEAM to a single entire Technology Center by the end of 2002. Current plans show TEAM being fully deployed throughout the Office by the end of 2003.

All USPTO patent examiners now have total coverage of the full U.S. patent images from 1790 and full U.S. patent text search from 1971. They can also integrate the results of those searches into their office actions from their desktop workstations. Also available are the contents of the First Page DataBase (FPDB) project, IBM Technical Disclosure Bulletins, and Derwent's World Patents Index (WPI) abstractions. The FPDB consists of the English-language Patent Abstracts of Japan (PAJ) from 1976, and their associated clipped images, 5 European Patent Office (EPO) member states (EPO patent documents, France, Germany, Great Britain and Switzerland), WIPO patent documents (PCT Publications), and U.S. Patent abstracts, when chosen as the preferred family member by the EPO, from 1978. Additionally, examiners have access to full patent document images from 1920 for these same intellectual property authoring countries and organizations. The addition of full English-language text of EPO documents and full patent document images for additional intellectual property countries and organizations are planned.

(New) techniques used for the generation of patent information (printing, recording, microfilming, photocomposing, etc.).

There are no new developments to report for calendar year 1999.

## III. Matters concerning abstracting, classifying, reclassifying and indexing of technical information contained in patent documents:

Abstracting, reviewing, translating

Abstracting

The Scientific and Technical Information Center (STIC) does not abstract technical information from patent documents.

Reviewing, Translating

STIC's translators and translation contractors provide full or partial English-language versions of patent documents upon request by USPTO staff. The annual workload is approximately twenty million words, the majority of which are Japanese, German, and French. In addition, the translation staff often reviews with requesters the general contents of patent documents and provides partial oral translations prior to or in place of written translations. The Translations Branch is currently evaluating machine-assisted translation tools as a method of improving translation turnaround time and controlling costs.

Classification and reclassification activities; Classification system used, e.g., International Patent Classification (IPC), other classification (please indicate whether or not patent documents are classified by your Office and, if so, which classification is used)

In 1999, approximately 185,101 patent documents were reclassified and 1,921 new subclasses were created under the US Patent Classification (USPC) system. Of the 185,101 patents that were reclassified, 29,411 were non-United States patents and approximately 155,690 were United States patents (originals and cross-references).

The USPTO plans to resume applying USPC codes to foreign patents beginning in the summer of 2000. The planned process will employ automated techniques, i.e., concordances and linguistic tools, as well as intellectual refinement by examiners and classifiers. Examiners will be able to search foreign patent documents by USPC via the electronic search systems "EAST" and "WEST". No additional copies will be added to the paper files. Data mining efforts to extract foreign patent and associated USPC classifications from the Foreign References Cited field of issued US patents resulted in over 450,000 additional foreign patent records for electronic search and retrieval.

The USPTO continues to develop tools to automate classification activities and continues to standardize USPC classification information to enhance automation capabilities. The initial deployment of a desktop electronic reclassification system occurred in Spring, 2000.

All utility patents issued in 1999 include both a US Patent Classification designation and an International Patent Classification designation. The Automated Patent Search (APS) systems available within the PTO and at selected Patent and Trademark Depository Libraries provide the capacity for searching US Patent documents with either a US or IPC classification designation.

The USPTO maintains a concordance between the United States Patent Classification System and the International Patent Classification system. This concordance was updated in 1999 to reflect classification changes effected by the Seventh Edition of the IPC.

Further information about the use of the US Patent Classification System is available at:

http://www.uspto.gov/web/menu/pats.html

Coordinate indexing (ICREPAT-types and/or domestic deep indexing systems, keyword indexing)

No new activities have been initiated under this topic.

Hybrid system indexing

No new activities have been initiated under this topic.

Bibliographic data and full-text processing for search purposes

Currently, USPTO provides full text search of US patents back to 1970. This summer they plan to provide text access to US Patent that issued prior to 1970. This will be done using unperfected OCR data. All these documents have corresponding images available for review by examiners. It is expected that examiners will identify relevant documents by text searching the "dirty" OCR file, but will use the document images to determine applicability to applications under review. Examiners also have full text access to IBM technical disclosure bulletins, and bibliographic data and abstract data from Derwent, EPO and JPO patents.

## IV. Search file establishment and upkeep:

File building

The Examiners' Search File is continually updated to ensure that the file is complete and current. The US patent documents granted each week are processed and added to the Search File. In 1999, an average of 3,260 US patent documents issued each week and an average of 12,709 original and cross-reference documents were added to the Search File each week.

OCR File

The USPTO has used OCR software to convert images of approximately 166,000 US patents issued between 1970 and 1976 missing from the current text file. It is also converting the US Patent backfile from 1970 to 1790, which is approximately 3.9 million additional documents. The conversion is completed, and USPTO is working to load the text into its search engine, BRS/Search, for access. This is planned for October 2000.

NPL

The USPTO has provided electronic access to over 232 technical journals to all examiners, through the Elsiver database. In addition, Examiners have access to *UMI ProQuest Direct* via the Internet. Finally, Examiners have access to IBM's Technical Disclosure Bulletins.

Non-US Patents

All JPO patent full images through 1996, which are associated with the first page database have been loaded to storage devices and are available to examiners. Because of the change in format, the loading of documents after that date was delayed. Currently, we expect to have them completed in September

1999. All of the EPO patent full images associated with the first page database, both front file and backfile are loaded and available to examiners.

Updating

The Examiners' Search File is continually updated to ensure that the file is complete and current. The US patent documents granted each week are processed and added to the Search File. In 1999, an average of 3,260 US patent documents issued each week and an average of 12,709 original and cross-reference documents were added to the Search File each week.

Storage, including mass storage media and microforms

In 1996, the USPTO began incorporating magnetic rewritable storage devices into its standard operations to replace older optical storage technology. The magnetic devices hold all patent data, and are used as a pre-load area for volume reproduction of patent data via high speed printers. The use of the faster responding devices has dramatically improved search system performance. The "redundant array of disk" technology used by the magnetic devices has substantially improved data availability. During 1996-1999 USPTO acquired the necessary amounts of magnetic storage to process terabytes of patent, trademark, and other business data electronically. At the end of 1999 all the optical storage devices had been replaced. Last year, USPTO established an Internet site with access to text and images of patents from 1976 forward. Over 2 terabytes of image data stored on these devices at USPTO is accessible from the Internet. 800 gigabytes of patent full text data and 70 gigabytes of patent bibliographic data reside on remote storage in New York and North Carolina. Most recently, USPTO has initiated the acquisition of an additional 2 terabytes of storage to add images of all US patents from 1790 forward on the Internet site.

Documentation from other offices maintained and/or considered part of the available search file

The US Patent and Trademark Office receives, by means of exchange agreements, the patent documents of most countries of the World. Most of the patent documents received by the STIC are now in the form of CD-ROMs, which remain the primary exchange medium. The CDs produced by PCT member countries are available on the PTO network through examiner search tools, EAST and WEST. During the past year STIC staff is making increasing use of the Internet sites created and maintained by national patent offices and multinational patent organizations.

The USPTO is also making available document images and products of other intellectual property offices obtained from magnetic tape and CD-ROM products. Currently examiners have access to IPC classifications on line. PTO is currently evaluating DOC.db for use as a search utility for examiners. PTO plans to use this information to assist in applying US classifications to non-US patents.

As noted above, the bibliographic data and abstracts from EPO and JPO publications are provided to examiners to access using text searching or classified searching methods.

**V. Activities in the field of computerized and other mechanized search systems:**

In-house systems (on-line/off-line)

USPTO continues to add new data sources to its search systems. Agreements are being worked out with EPO for their full text database, as well as other countries.

The USPTO has continued the development and deployment of patent and trademark search systems as reported in previous years. USPTO's automation program is described in the Strategic Information Technology Plan, which is updated annually.

As described in previous reports, the on-line text search system is used by examiners, classifiers, and the public. Since the 1995 report, USPTO researched alternative systems and has prototyped several products -- Verity's TOPIC, Personal Library Software (PLS), Dataware's BRS Search and OpenText -- the USPTO expects improvements over the current system. BRS has been selected as the replacement system for the current CAS owned Messenger search system. It was installed, and examiners were given access to it starting in January as part of a Pilot. It is being deployed to all examiners in May 1999.

Patent Image Retrieval System

Since the 1995 report, the USPTO deployed Windows NT desktop text and image workstations to all patent and trademark examiners. Examiners will have access to the text and images of US, JPO, and EPO patents through a browser based client called WEST and a coded client called EAST. WEST is designed for ease of use, and rapid deployment of new functionality. EAST is a more complex interface, designed for greater user customization, more rapid retrieval of images, and greater use of the keyboard. WEST will be deployed in May, and EAST will be deployed in June of 1999.

Biotechnology Sequence Search System

In 1990, the USPTO began requiring patent applicants who file applications that disclose protein and DNA sequence information to include a submission of the sequence information in computer readable

format (CRF) (37 CFR §§ 1.821-1.825). The sequence submission requirement not only facilitates the examination of biotechnology-related patent applications, but also allows the USPTO to compile a database of sequence information contained in US patents. Under the rules, the patent applicant performs data entry of sequence information. The USPTO's Scientific and Technical Information Center (STIC) receives and evaluates each sequence submission to assess compliance with the technical requirements for format and validity, as well as compliance with the sequence submission rules. Once STIC verifies the submission, staff convert the data into a format compatible with the internal USPTO search system, and load the data into the pending sequence database. This sequence information, after processing, can then be used by examiners and STIC staff for searching and analysis. The USPTO also retains a copy of the original submission for inclusion in the permanent record of each patent application file, and for use in publication of the patent application upon grant.

The USPTO relies heavily on nucleic acid (e.g. DNA, RNA) and amino acid (e.g., protein) sequence information supplied in biotechnology patent applications to search nucleic and amino acid databases for relevant prior art and other information. This information is used to assess whether the claimed invention complies with the statutory requirements of utility, novelty, non-obviousness, and to provide an enabling disclosure of the technology behind the invention. USPTO keeps pace with the rapid expansion in sequence information filings by continuing to enhance its Automated Biotechnology Sequence Search (ABSS) system for searching nucleic and amino acid sequences submitted as part of these applications. The ABSS system is based in-house on a network of Sun Microsystems hardware, MasPar massively parallel computers, running the MPSRCH sequence similarity searching software, and the Compugen system, both utilizing the Smith-Waterman algorithm. The MasPar and Compugen systems perform sequence searches on various databases including: EMBL, Genbank, Genseq, Swiss-Prot, and PIR.

More than 20 users, including Technology Center 1600 biotechnology examiners and STIC searching staff, can access this system 24 hours per day, seven days per week. During the first six months of FY2000 (October 1999-March 2000), 29,746 sequences were searched, and 5,609 sequence listings were received for processing.

New software to process the computer readable forms was developed to accommodate the new sequence rules, which went into effect in July of 1998. The rules were revised to streamline the CRF and to provide a more language neutral format in agreement with the Trilateral Partners. The new software is now in production. A new version of the Checker program to be used by applicants as a tool to check their CRF prior to submission to the USPTO will be available soon.

The patents backfile project, which electronically captured sequences for all pre-1990 patents issued with sequences, was completed and sent to the National Center for Biotechnology Information (NCBI), which is the curator for the Genbank database. A second backfile project to capture the sequence information from foreign patents with US priority is underway.

External databases

USPTO patent examiners and trademark attorneys have access to over 1,000 commercially available databases including STN (Chemical Abstracts Services and two other STN International Offices), Questel/Orbit, DIALOG, Dr. Link, and LEXIS/NEXIS. The content of the Derwent WPI file has been brought in-house and is available via WEST and EAST. Patent examiners in the biotechnology field also have access to the commercial sequence databases (for protein and nucleic acid sequence) acquired from the Oxford Molecular Group.

Administrative management systems (e.g., register, legal status, statistics, administrative support, etc.)

PALM Migration

USPTO continued the phased subsystem delivery with successful delivery of the first subsystem (Infrastructure) in October 1998. The second subsystem (File Ordering) was delivered in October 1999. The third subsystem (Pre-examination system) was delivered in February 2000. The PALM project schedule has been impacted by implementation of the American Inventors Protection Act. The next subsystem (PG Pub) is scheduled for November 2000 release. The project is expected to run through the March 2001 time period when the final subsystem EXPO which encompassed the functionality of Examination, Post Examination and Patent Term Adjustment will be delivered.

PALM on PTONet

All USPTO employees have been provided further access to the current Management Information System on their desktop PC via barcode readers and a web browser interface. This system has been found to provide increased case tracking accuracy. No future enhancements are planned until PALM Migration is completed.

Equipment used (hardware, including the types of terminal and network used, and software), carriers used

PTOnet has an architecture consisting of a campus wide ATM switched backbone with edge device switches providing switched ethernet connection from individual workstations. Currently, PTOnet users have dedicated 10 Mbps switched ethernet connections. When the network replacement project scheduled for FY2001 is completed, users will have access to the network via 100 Mbps connections.

PTOnet

As desktop applications require more network bandwidth (through the backbone server attachments) PTOnet will be upgraded to keep ahead of the requirements. In 1997, PTOnet users shared a 10 Mbps Ethernet segment, with an effective bandwidth of 3 to 4 Mbps. Currently, PTOnet users have dedicated 10 Mbps connections; in the future, bandwidth of 100 Mbps or more will be provided to the desktop.

PTOnet provides examiners and other staff with access to the Internet through dual-redundant firewalls. Access zones implemented via firewalls and proxy servers have been implemented to provide a limited amount of controlled access to PTOnet resources for external users. Additional external access capabilities are being developed through a firewall redesign project and implementation of a variety of access control mechanisms including digital certificate based authentication supported by a full Public Key Infrastructure (PKI).

Access to external databases

External databases are primarily accessed using software such as STN Express or DialogLink loaded on PTONet. Also, now that examiners have access to the Internet, they have started using the services on secure servers, such as Dialog, STN Easy.

External databases are primarily accessed using software such as STN Express, DialogLink, or Imagination, loaded on PTONet. During 1999 use of the Internet replaced X.25 as the access method for these services. Examiners establish connections to the external databases through sessions that are set up after logging into the PTO firewall. PTO's Internet access line bandwidth was increased from T1 to fractional T3 (>20 Mbps). Also, now that examiners have access to the Internet, they have started using the services on secure servers, such as Dialog, STN Easy, and Dr.Link.

The text search system is hosted on a HP V-2500 class Unix processor. The text and image data are stored on EMC magnetic storage devices.

Existing online thesauri; their structure, presentation and usefulness for computerized searches

The new releases of both of the Search Systems, EAST and WEST 2.0, will have the Assignee Thesaurus. In addition, WEST 2.0 will incorporate a general technical thesaurus from the US Defense Technical Information Center.

## VI. Administration of the industrial property office library and services available to the public (relating to facilities, e.g., for lodging applications, for assisting clients on searching procedures, for obtaining official publications and registry extracts):

Planning, administration, automation, security, buildings

Planning and Administration

The Scientific and Technical Information Center (STIC) is a component of the USPTO's Search and Information Resources Administration. Although providing a number of services to the public, STIC's

primary mission is to serve the examining and professional staff of the USPTO. STIC is composed of three divisions -- Scientific Literature, Chemical/Biotechnology, and Foreign Documents.

The Scientific Literature Division is responsible for the provision of information services through satellite information facilities supporting the examination needs of five Technology Centers. The decentralized facilities, called Electronic Information Centers, serve as a focal point for information services. The staff provides prior art and document delivery services and transmits requests for other services (e.g. translation, interlibrary loan) to the appropriate STIC unit for action. The Lutrelle F. Parker, Sr. Memorial Law Library provides access to legal information for examiners and other USPTO staff. The law library is now a joint facility with one of the EICs.

The Chemical/Biotechnology Division serves the rapidly growing information demands of Technology Center 1600. The division and its associated library are STIC's first and currently the largest effort to provide onsite information services to a technology center. The division provides biotechnology and chemical on-line search services for examiners only and reference services for the examiners and the public. This division builds and enhances the biotechnology and chemical literature and reference collections. The staff manages the processing of computer readable form submissions for patent applications containing nucleotide and amino acid gene sequences and they are also the primary users of the in-house genetic sequence search system.

The Foreign Documents Division is responsible for assisting examiners and the general public in the use of USPTO's extensive collection of foreign patents. Access to prior art is provided through the use of in-house and commercial databases and Internet services, as well as printed and microform tools for older materials. The staff provides reference services to examiners and maintains self-service facilities for the public, patent examiners, and other USPTO professional staff. The division also provides copies of foreign patent documents to the public for a fee. The staff maintains USPTO's collection of foreign patent documents. The translation staff furnish examiners with both oral and written English-language translations of foreign patent documents and technical articles.

Automation

STIC utilizes an automated library system accessible to examiners at the desktop and to other users in STIC facilities. The catalog includes the post-1977 non-patent literature collection and the most active portion of the pre-1977 collection. The catalog allows for searchers to hyperlink with electronic resources that it contains. .

The STIC has transferred the operation of the FPAS and ABSS systems to the OCIO.

Security, Buildings

The main STIC collection is housed in commercially owned buildings along with other USPTO offices and remains locked during non-business hours. The property owners provide guards to control access to the buildings during non-business hours. Roving guards are provided during regular business hours. STIC takes various security measures to ensure the integrity of the STIC collection, including issuing USPTO security passes to all STIC employees and utilization of a book detection system. STIC facilities located in technology centers are accessible to examiners 7 days a week, 24 hours a day.

Collecting, acquisitions, preparation

STIC also has the mission of identifying, acquiring and maintaining non-patent literature (NPL) in electronic or print formats, devoting special emphasis to literature for new and emerging technologies. The NPL resources acquired focus on the applied science and technology fields, with special emphasis on creating special collections or systems for rapidly developing technologies, e.g. computer software, business methods, and biotechnology. Staff also identify, evaluate and monitor expenditures for online commercial databases. In addition, STIC manages a support contract for the USPTO, which covers library services, facilities management, and information management functions.

The Foreign Documents Division processes and distributes all foreign patent documents and journals received at the USPTO. The majority of foreign documents are now received in CD-ROM format.

Collection management, preservation

The collections consist of over 150,000 monograph and serial titles, and approximately 344,274,000 foreign patent documents. Those portions of the collections maintained in Main STIC and the Chemical-Biotechnology Library are open to the public. In accordance with the Patent Cooperation Treaty (PCT), STIC meets minimum documentation requirements for foreign patent documents and non-patent literature and makes these documents available to the public.

Interlibrary lending, resource sharing, networks of patent libraries in the country

Interlibrary Loans

STIC's Reference Fulfillment Branch was established to expeditiously provide the Examining Corps with non-patent literature references. After an examiner requests a non-patent literature reference, the Branch locates the reference and requests document delivery from a vendor/supplier. This work is increasingly accomplished electronically via FAX, Internet, Ariel, CARL/Uncover, and other services. The staff use OCLC (a national on-line shared cataloging and interlibrary loan system) and CUADRA Star as location tools and Dialog and STN for citation verification. The STIC participates in the National Commission on New Technological Uses of Copyrighted Works (CONTU). In observance of CONTU requirements, all requests are tracked for the number of occurrences from a journal on the Star system. If a minimum of five articles are requested from a journal not owned by STIC, either a

subscription of the journal is purchased or copyright fees are paid to the Copyright Clearinghouse Center (CCC).

Reference and Copy Services

STIC provides reference assistance to examiners in the main facility, the Electronic Information Centers, the Chemical-Biotechnology Library, and the Parker Law Library during regular business hours. Reference service for examiners includes assistance with technical and reference materials, commercial on-line databases, and sequence searches on STIC's in-house automated biotechnology search system. With appropriate USPTO user passes, the public may gain access to the main facility and the Chemical-Biotechnology Library and use the collections (on-site), public copiers, and microfilm readers.

STIC's foreign patent staff provides assistance on the foreign patent collection to USPTO staff and to the public. Computer searches on commercially available databases such as Questel/Orbit and INPADOC are provided for USPTO staff only. As part of the normal public services available, the foreign patent staff will help the public locate foreign patent information by providing advice regarding searching, databases, and collections. Public users can make their own copies of foreign documents, or remotely, can request copies of foreign patents from the extensive STIC collections. The copy services are available both directly from the USPTO and as a component of the special service mix at Patent Depository Regional Libraries.

Resource Sharing

STIC, a participant of the OCLC shared cataloging and interlibrary loan system, is a non-supplier for interlibrary loans. STIC is also participating with research networks via INTERNET to complement the existing shared cataloging and interlibrary loan system.

Network of Patent and Trademark Depository Libraries (PTDLs)

The USPTO's Patent and Trademark Depository Library Program (PTDLP) consists of 85 academic, public, state and special libraries, referred to as PTDLs, located in all 50 states, the District of Columbia, and Puerto Rico. Four of these libraries offer additional fee-based services and are referred to as PTDL partnerships. New PTDLs designated in 1999 include the Las Vegas-Clark County Public Library in Las Vegas, Nevada and the Rochester Public Library in Rochester, New York. One new PTDL Partnership was also designated, the Boston Public Library in Boston, Massachusetts. A listing of PTDLs may be viewed at the USPTO's Internet Web site or in each issue of the Official Gazette.

108 attendees participated in the 22nd Annual PTDL Training Seminar, held in Arlington, Virginia from March 14 –19, 1999. Special guests included representatives from the World Intellectual Property Organization, the European Patent Office, the Canadian Intellectual Property Office, and Catholic University of America.

During 1999 the PTDL Program was involved in a number of outreach activities. It sponsored and staffed exhibit booths at the American Library Association Midwinter Conference in Philadelphia, Pennsylvania; the American Library Association Annual Conference in New Orleans, Louisiana; the American Society for Engineering Education in Charlotte, North Carolina; the Special Libraries Association Conference in Minneapolis, Minnesota; and the American Association of Law Libraries in Washington, D. C. Public seminars and staff training were also conducted at a number of PTDLs throughout the year.

Information services available to the public (including computerized services and search files contained in libraries remote from your Office and patent information posted by your Office on the World Wide Web

Information on the Patent and Trademark Depository Library (PDTL) Program is available form the PTDLP Web site located at: http://www.uspto.gov/go/ptdl. The Web site includes information about the Program's mission, history, background, services, and core collections. Links to the Program's publications, materials, and reference tools are also available. Each of the 85 PTDLs is linked from the PTDL List available from the Web site.

Automated Information in Patent and Trademark Depository Libraries

Web-based online searching for the patent text and image database is available at the 27 PTDLs participating in the WEST pilot project.

The USPTO continues to provide a number of optical disc products to PTDLs for direct public use. This includes all Cassis optical disc products; Patents BIB, Patents CLASS, Patents ASSIST, Patents ASSIGN, Patents SNAP, Trademarks ASSIST, Trademarks ASSIGN, Trademarks PENDING, Trademarks REGISTERED, USAPat, and USAMark.

PTDL Partnerships in Sunnyvale, California, Detroit, Michigan, and Houston, Texas offer fee-based access to selected USPTO's in-house automated systems. These systems include WEST, EAST, and X-Search. Other PTDL Partnership services include electronic ordering of US and foreign patent documents, on-site and videoconference practitioner and public seminars, local filing of Disclosure Documents, and secure videoconferencing capability between patent examiners and inventors and/or attorneys.

Automated Information in Patent Public Search Facilities

Public access to patent text and image search and retrieval was provided through the Automated Patent System (APS) until the system was retired in October 1999. The new APS replacement system called the Web-based Examiner Search Tool, or WEST, was introduced to public users in September 1999.

WEST permits access to all US patent images and word searching of text contained in US patents granted since 1971. It also provides text searching through English language patent abstracts from the European Patent Office and Japanese Patent Office. Public access to these search systems continued to grow throughout 1999. Use doubled from 1522 hours in January 1999 to 3092 hours in December 1999. The number of customers also grew, with 638 unique customers signing onto the system in December 1999, accounting for 10,463 sessions. This averages 476 patent sessions per day in the patent search facilities in December 1999, a significant increase over 1998 use.

The number of workstations in the Patent Search Room increased from six to 33 in 1999, while the Patent Search and Image Retrieval Facility continued to make 23 workstations available for public use. From January through September search fees were collected for APS on an hourly basis and for pages printed (from the text-only sessions). While users are getting used to the new WEST system, session fees have been suspended. However, fees are collected for pages printed from both text and image searches. With the increased number of workstations, there is no problem with machine availability, and except for peak hours, no customers are being turned away.

An 8-hour training course on the WEST system is available to the public for a nominal fee. In the last three months of 1999, 187 public users were trained on WEST. While APS was still available, 149 public users were trained on APS-text (a 12-hour course), and another 16 on APS-image workstations (a 4-hour course). In 1999, a total of 352 public users were trained on automated patent systems.

The CD-ROM jukebox in the Patent Search Room allows for access to all of the PTO's CD-ROM products. Access to the system is free of charge. A print fee was charged until December 1999, then was suspended.

Automated Products Provided to the Public

The USPTO's Information Dissemination Organizations continues to provide patent information products and services to the public in a variety of formats. The *Products and Services Catalog*, produced annually, describes USPTO products and services, and contains details on how to obtain them.

The following CD-ROM products are available for purchase by the public:

*Patents BIB: Selected Bibliographic Information from US Patents Issued 1969 to Present*
This Cassis CD-ROM contains bibliographic information for utility patents issued from 1969 to the present, and for other types of patent documents issued from 1977 to the present. It includes date of issue, state/country of first listed inventor's residence, assignee at time of issue, status (i.e., withdrawn, corrected, expired for failure to pay maintenance fees, reexamined or term extended), current classifications, patent title, and patent abstracts (for the most recent 2½-year period, as disc space

allows). Patents BIB also refers to patent image locations on USAPat, described below. This CD-ROM product is updated every two months.

*Patents CLASS: Current Classifications of US Patents Issued 1790 to Present*
This Cassis CD-ROM contains current classification information for all utility, design, plant, reissue and X-numbered patents, as well as defensive publications and statutory invention registrations issued from 1790 to the present (over 6 million documents). Indexing of classification information has been optimized for rapid retrieval. This CD-ROM product is updated every two months.

*Patents ASSIGN: US Patents Assignments Recorded at the USPTO 1980 August to Present*
This Cassis CD-ROM includes data derived from assignment deeds for issued patents, which were recorded at the Patent and Trademark Office after August 1980. The disc includes assignments recorded before and after the patent issued. This CD-ROM product is updated every three months.

*Patents ASSIST: Full Text of Patent Search Tools*
This Cassis CD-ROM is a compilation of many patent search tools including the following: Manual of Classification, Index to the US Patent Classification, Manual of Patent Examining Procedure, IPC - USPC Concordance, and Attorneys and Agents Registered to Practice Before the US Patent and Trademark Office. In addition, Classification Definitions, a Patentee-Assignee Index, and a Classification Orders Index are included. The Patentee-Assignee Index shows ownership at time of issue for utility patents 1969 to present; for other patent types 1977 to present; and inventor names 1975 to present. The Classification Orders Index is a list of classifications abolished and established since 1976 with corresponding Classification Order number and effective date. This CD- ROM product is updated every three months.

*Manual of Patent Examining Procedure (MPEP)*
This Manual is published to provide US Patent and Trademark Office patent examiners, applicants, attorneys, agents, and representatives of applicants with a reference work on the practices and procedures relative to the prosecution of patent applications before the Patent and Trademark Office. The MPEP is available in electronic form as an ASCII text file downloadable (no charge) from the USPTO Web site on the Internet at http://www.uspto.gov/, and as a searchable text file on the Patents ASSIST CD-ROM product which includes many other useful files (CD Answer® software). Each revision is fully incorporated into the base edition and republished as a whole.

*USAPat: Facsimile Images of United States Patents*
This Cassis CD-ROM product contains facsimile images of US patents. An “image” is an actual page of the patent, including all drawings, and looks just like the original printed document. The purpose of USAPat is to serve as a document delivery system, not as a search system. Retrieval is by document number only from a cumulative index. Excellent printed copies of actual documents can be obtained directly from a laser printer. Over 150 discs are published each year (three to four discs per week).

Delivery of weekly discs is usually within 15 days from issue date. As of 2000 January, USAPat is available on DVD-ROM only, which, because of increased disc capacity, reduces the number of weekly discs to one.

*GLOBALPat: Text and Drawings from Patent First Pages*
This Cassis CD-ROM includes text from the first page of a representative member of each patent family published by the United States, the European Patent Office, France, Germany, Great Britain, Switzerland, or the World Intellectual Property Organization. Records contain bibliographic and patent family information, an abstract, and a drawing (where available). This information was derived from the First Page Data Base (FPDB), an English-language collection representing nearly all of the world's patent literature published since 1971. The FPDB and GLOBALPat retrieval software, MIMOSA, were jointly financed by the Trilateral Offices—the United States Patent and Trademark Office, the European Patent Office, and the Japanese Patent Office. The GLOBALPat back file of 116 discs, covering 1971-1996, is organized into sixty-nine technology groups based on the International Patent Classification. The front file, 1997-1998, is arranged by issuing country and document number. An index disc covering all published issues is available. With the distribution of a revised index covering the back file and the front file through 1998, the USPTO will cease publishing this title.

*Trademarks REGISTERED: Bibliographic Information from Active, Registered US Trademarks*
This Cassis CD-ROM contains the text of all active registered trademarks from 1884 to present with 30 searchable fields. This CD-ROM product is updated every two months.

*Trademarks PENDING: Bibliographic Information from Pending US Trademarks*
This Cassis CD-ROM contains the text of trademark applications, which have been filed but not yet approved for registration, with 25 searchable fields. This CD-ROM product is updated every two months.

*Trademarks ASSIGN: US Trademarks Assignments Recorded at the USPTO 1955 to Present*
This Cassis CD-ROM includes data derived from trademark assignment deeds recorded since 1955 with 10 searchable fields. This CD-ROM product is updated every two months.

*Trademarks ASSIST: Full Text of Trademark Search Tools*
This Cassis CD-ROM includes the searchable text of the Trademark Manual of Examining Procedure, the Goods and Services Manual, the Trademark Trial and Appeal Board Manual of Procedure, the Trademark Statute and Rules (Trademark Act of 1946 and the Rules of Practice), the Trademark Telephone Index, and the PTO Products and Services Catalog. It is updated on an irregular basis.

*USAMark: Facsimile Images of United States Trademark Registrations*
This Cassis CD-ROM contains facsimile images of U.S. registered trademarks from 1870 to the present. An "image" is an actual page of the trademark, including renewals and modifications, and

looks just like the original printed document. *USAMark* is a document delivery system, not a search system. Retrieval is by document number only from a cumulative index that covers all issued discs. Excellent printed copies of actual documents can be obtained directly from a laser printer. USAMark consists of 128 discs including registrations through 2000 April. USAMark is published monthly.

The USPTO maintains World Wide Web (WWW) and File Transfer Protocol (ftp) sites on the Internet, which permit the public free access to selected information related to patents and trademarks.

The USPTO Web site at http://www.uspto.gov/ contains information about the office and information about patents and trademarks. It also provides access to searchable databases of patent and trademark information, and to tools that assist users in obtaining information.

In September 1999, the USPTO deployed a system that allows patent applicants and/or their designated representative(s) secure restricted Internet access to patent application status and prosecution history data for their pending patent applications. The Patent Application Information Retrieval system also provides public access to this information for granted patents. The mechanisms implemented to support secure access include the deployment of a Public Key Infrastructure (PKI). The PKI will provides the means to use digital certificates to accomplish strong authentication of individuals accessing the PAIR application. PAIR was initially made available to a limited number of users in July 1999 during a pilot period. The feedback and lessons learned from the pilot resulted in a number of enhancements to the PAIR software, Infrastructure, and the Registration process supporting the issuance of digital certificates. PAIR is accessible from the Patents Electronic Business Center link from the USPTO web site.

In August 1998, the USPTO began providing free access to a searchable trademark database. It consists of bibliographic data and full-text of over one million registered trademarks and pending applications which date back to 1870. Currently, the text portion of the database is updated on a two-month cycle, and images are updated weekly.

A new version of the trademark searchable database was recently added. It includes enhanced searching capabilities and is updated on the same schedule as the searchable database used internally by the Trademark Examiners.

In October 1998, the USPTO began accepting Trademark applications electronically from a web based application. The USPTO currently receives approximately 15% of all Trademark applications from this site. A similar pilot project for Patents is currently underway.

Patent and Trademark application status information are both available from the USPTO website. Both of these databases are searchable and are updated on a daily basis.

In November 1995, the USPTO began providing access to patent bibliographic information and abstract text on its Web Site. The PatBib database contains the data back to January 1976, and is updated on a weekly basis, usually on issue day (each Tuesday). The raw data is available for FTP downloading on the same day. In November 1998, the USPTO began providing access to the searchable, full text of US patent from January 1976 to the present. The database is updated weekly, usually on issue day.

**VII. Matters concerning mutual exchange of patent documentation and information:**

International or regional cooperation in the exchange of machine-readable information, e.g., bibliographic data, abstract and/or full text information

Patent document exchanges are maintained with substantially all patent-issuing intellectual property offices. Copies of US patents are provided in paper form to 24 offices and as microfilm to 6 others. CD-ROM products containing patents images and information are provided to 111 intellectual property offices (see descriptions of the products above).

All intellectual property offices receiving USPTO CD-ROM products as part of an exchange agreement have been notified of the upcoming changeover to DVD-ROM format in the year 2000.

The USPTO has been involved in a variety of discussions concerning the exchange of patent documentation and information. Principally, these efforts have taken place in the context of the Trilateral Partnership consisting of the European Patent Office (EPO), the Japanese Patent Office (JPO) and the USPTO. The Trilateral Partners continued to work with WIPO on a number of patent-related matters, e.g., developing and updating standards related to storage of patent data on electronic media, updating standards to be year 2000 (Y2K) compatible, etc.

Medium used for exchange of priority documents

No new activities in this area.

Medium allowed for filing applications

Electronic Filing System (EFS)
In the area of Electronic filing the Office continues to work on a series of projects under the heading of the Electronic Filing System (EFS). The first of these products was PrintEFS, which used the underlining concept of EFS to produce a paper printout and was released in April of 1999. The PrintEFS product is available on the PTO Web site and is downloadable to the individual users machine. PrintEFS presents a series of electronic forms, validation, and help to allow the user to input all of the needed bibliographic data. Once completed, the product prints out a Bibliographic data sheet

in a format similar to the International Standard Application Format. Since PrintEFS maintains control over how the output is printed it is anticipated that this will improve the accuracy of the scanning, OCRing and data loading.

The first EFS release occurred in September 1999, with the release of EFS Bio, which enabled PTO customers to file Computer Readable Form (CRF) biosequence listings over the Internet as an alternative to mailing the listings on portable electronic media, in fulfillment of the requirements of U.S. Code 37 CFR 1.821(e). The second EFS release occurred in December 1999 with the initial release of EFS Pilot software to a limited number of volunteer participants. The initial EFS Pilot, currently underway, allows a controlled number of applicants to electronically author and submit new U.S. utility patent applications, of limited complexity, for paper prosecution. EFS Pilot participants use a PTO-customized word processing template to create a structured XML (eXtensible Markup Language) tagged patent application Specification document. Accompanying parts of the application, including drawings, are submitted as scanned image files. Prior to transmitting the patent application, EFS Pilot applicants must obtain a digital certificate from the USPTO. EFS Pilot participants use a second PTO-customized application, the electronic Packaging and Validation Engine (ePAVE), to collect transmittal and fee information, attach the Specification and image files, and automatically validate (based on XML and USPTO business rules), bundle, compress, digitally sign, encrypt (using PTO Public Key Infrastructure to ensure confidentiality), and transmit the entire application package to USPTO. A second release of EFS Pilot software is planned for Summer 2000. The second release of EFS Pilot software will be made available to a wider group of users. EFS software usage in support of pre-grant patent application publication is planned for the Fall 2000.

PatentIn

Since October 1990, the USPTO has made available to customers a software tool called PatentIn. This tool provides customers an efficient means to comply with USPTO rules requiring a Sequence Listing (in paper and electronic form) to accompany each biotechnology patent application that contains biological sequence information. This tool was initially designed and developed by USPTO, and is used by over 70 percent of customers when they submit such applications. Several modifications and improvements to make PatentIn compatible for international use have occurred since 1990 resulting in the final DOS version, PatentIn 1.3.

During the early 1990's, USPTO and EPO customers suggested that, given the projection for increased rate of submissions, the software would be far more beneficial if it were Windows based. In addition, both EPO and JPO have requested the rapid development and implementation of the Windows PatentIn product as part of Trilateral Project 14.2. to ensure that their respective biotechnology patent examination efforts are equally as efficient. In 1996, USPTO and EPO began a cooperative effort to develop a Windows-based version of PatentIn that would satisfy WIPO Standard ST.25. As a result of these efforts PatentIn 2.0 was released in 1998. An updated and improved version called PatentIn 2.1 was released in 1999.

Development of the next version, PatentIn 3.0, is nearing completion with delivery scheduled for June 2000. This began as a web-based version with the idea being to generate the sequence listing and immediately transmit it to the USPTO over the Internet. The development of EFS overtook the PatentIn revision effort so the focus was changed to improvements in version 2.1 instead. PatentIn 3.0 can handle up to 100,000 sequences and sequences with lengths of up to one million residues. It is written in C++ which makes it easily portable to any Windows-based system.

*Print Electronic Filing System (PrintEFS)* – Building on the basic concept of the Electronic Filing System, PrintEFS was developed as a solution to allow the automated input of bibliographic data information. The Print EFS authoring tool is located on the PrintEFS web site, http//www.uspto.gov/go/printefs. This product was made available to the public on April 29th 1999. The PrintEFS product, once downloaded, can be used without a web connection and allows the applicant to fill in patent application bibliographic data on a user-friendly form. This form includes drop down menus and help guides along with access to a complete detailed authoring guide. Once the form is completed the user simply clicks on the print button that produces a printout of the entered patent application data in a computer readable format. The product controls this printout in order to assure the greatest accuracy in scanning and OCRing. This improvement in accuracy at the input of the bibliographic data will be reflected in few errors in filing receipts generated by the USPTO.

*Electronic Filing System (EFS)* – In September 1999, the USPTO deployed a pilot version of the Electronic Filing System supporting the submission of gene sequence listings via the Internet.

The pilot system includes the electronic Packaging and Validation Engine (ePAVE) client application.

In December of 1999 an enhanced version of the ePAVE client application was deployed to a small group of pilot users to support the submission of new utility patent applications. The ePAVE client provides a number of forms containing transmittal and fee related information that are used by the applicant as part of preparing an application for submission. The information entered into each of the various forms is saved as XML documents. The Specification, including the abstract, claims, drawings, continuity data, etc are authored as a structured XML document using an authoring template created by the USPTO for WordPerfect Version 9. A form in the ePAVE client is provided for the applicant to attach the XML instance created with the WordPerfect template. Once the applicant has completed the appropriate forms and attached the specification instance, the XML documents and any externally referenced files such as TIFF images of drawings and complex work units are bundled and compress into a single zipped archive. The applicants' digital certificate, issued by the USPTO is used to digitally sign the zipped archive, and the package is encrypted and transmitted to the USPTO via the Internet. Once the package is received, the integrity of the package is validated and a receipt including a timestamp and the contents of the submission package is generated for the applicant.

The USPTO plans to continue the evolution of the Electronic Filing System in 2000, incorporating feedback and lessons learned from the pilot. A Microsoft Word based XML authoring capability will be added in mid-2000 and a production capability supporting the electronic filing of patent application documents for publication is planned for late 2000. The USPTO also plans to being working with third parties interested in providing XML authoring solutions incorporating USPTO developed Document Type Definitions (DTDs).

Implementation of the Statement of Principles Concerning the Changeover to Electronic Data Carriers for the Exchange of Patent Documents (please make a status report on the extent to which your Office has changed over to electronic data carriers for the exchange of patent documents)

The USPTO began providing copies of its patent documents on the USAPat CD-ROM product (see description above) to all of its international exchange partners in 1994. In consideration of the ever increasing costs to store and maintain patent documents as paper search files and maintain their availability on microfilm media, the USPTO continues to study ways to provide exchange recipients with US patent specifications on CD-ROM or other electronic media in lieu of paper and microfilm.

Intellectual property offices receiving paper and microfilm copies of US patent documents have been reminded that those products will no longer be provided as part of the exchange agreement beginning with the first issue of the year 2000. Each office will continue to have access to the documents on USAPat DVD-ROM. Offices currently receiving copies of color plant patents in paper will continue to receive them until plant patents are available in color on a suitable electronic media.

## VIII. Other relevant matters concerning education and training in, and promotion of, the use of patent information, including technical assistance to developing countries:

Training courses for national and foreign participants, use of audiovisual means

The USPTO provides technical training relevant to patent law and patent practice for all patent examiners. Additionally, a variety of technical classes are available dealing with search techniques on the Automated Patent System (APS) on and methods of using a variety of custom computer software to assist in the examination process.

The Academy participates in the two week Visiting Scholars Program. Here the PTO hosts patent professionals from offices world-wide and presents them with training on patents, trademarks, copyrights, and related procedural and operational issues.

The Academy also operates a televideo-conference facility. This has been used to broadcast live meetings and lectures with officials in foreign countries.

Assistance to developing countries (sending consultants and experts, receiving trainees from developing countries, etc.)

The USPTO offers various programs to provide technical assistance to developing countries and to countries moving to a market economy. Programs focus establishing adequate systems in these countries for the protection of intellectual property rights. They also provide intellectual property enforcement training. The goal of the programs is to provide advice and expertise to these countries with the desired outcome being the reduction of losses resulting from piracy of U.S. intellectual property.

The 1999 Visiting Scholars Program provided participants from China, Estonia, Laos, Latvia, Liberia, Lithuania, Namibia, Peru, Philippines, Saudi Arabia, Singapore, Suriname, Tanzania, Thailand, Ukraine, and Vietnam with two weeks of classroom and hands-on study of various aspects of the administration of intellectual property law, patent and trademark examination and copyright protection, and an opportunity to gain an understanding of the important role of intellectual property protection as a tool for economic development.

Other highlights included an Intellectual Property Enforcement Training Program and Co-sponsored programs with WIPO in Mombassa, Kenya. The programs in Kenya included an "African Sub-Regional Symposium on International Standards for Protecting Intellectual Property and Intellectual Property in the Digital Age" and a "regional Consultation on Electronic Commerce and Intellectual Property".

Promotional activities (seminars, exhibitions, visits, advertising, etc.)

The USPTO continues to provide patent and trademark information to the public through the PTDL network of 85 libraries located throughout the United States and Puerto Rico.

The USPTO expanded its 1999 *Catalog of Patent and Trademark Information Products and Services*. It is available on the USPTO's Web Site.

Studies to identify trends in new technology, e.g., by the use of patent statistics, preparation of monographs, etc.

The USPTO maintains the Technology Assessment and Forecast (TAF) database, which allows selected patent bibliographic information to be accessed, retrieved, and analyzed in a variety of ways. Time-series information by country, company, and technology may be obtained and used to identify trends. Specific information, such as patent titles and independent inventor names and addresses, is also available. A variety of prepared TAF statistical reports are available to the public.

Many statistical reports displaying overall trends by country, state, type of patentee (e.g., corporate, individual, or government), and patentee organization are available free of charge while other prepared reports are available for a nominal charge. Some reports profile patenting activity in new and active technologies, such as Genetic Engineering, the Internet, Semiconductors, and Telecommunications; other reports profile regional US patenting by state and locality. Other reports display trends by specific patenting group (e.g., US universities, US women). Many profile reports are updated once or twice annually, and new reports are added as necessary. In addition, customized patent trend reports may be obtained for a fee, subject to available resources. Many of the TAF general statistical reports may be accessed at the USPTO's Internet Web site; some reports are available only at the Internet Web site.

Assistance furnished by offices to facilitate the changing over of receiving offices to electronic data carriers for the exchange of patent documents (see also item 4 of Chapter VI, above)

The USPTO closely cooperates with its exchange partners and provides detailed responses to requests for information regarding use of its USAPat CD-ROM product as a replacement for paper or microfilm patent documents. The USPTO has also offered to provide any exchange partner which decides to stop receiving a paper set of patent documents prior to the year 2000 with two subscriptions to USAPat CD-ROM along with complete back files to 1994. For offices which decide to stop receiving US patents on microfilm, a single subscription to USAPat along with the backfile was offered.

## IX. Other relevant matters

The USPTO continued its participation in the technical activities established under the various international agreements administered by WIPO.