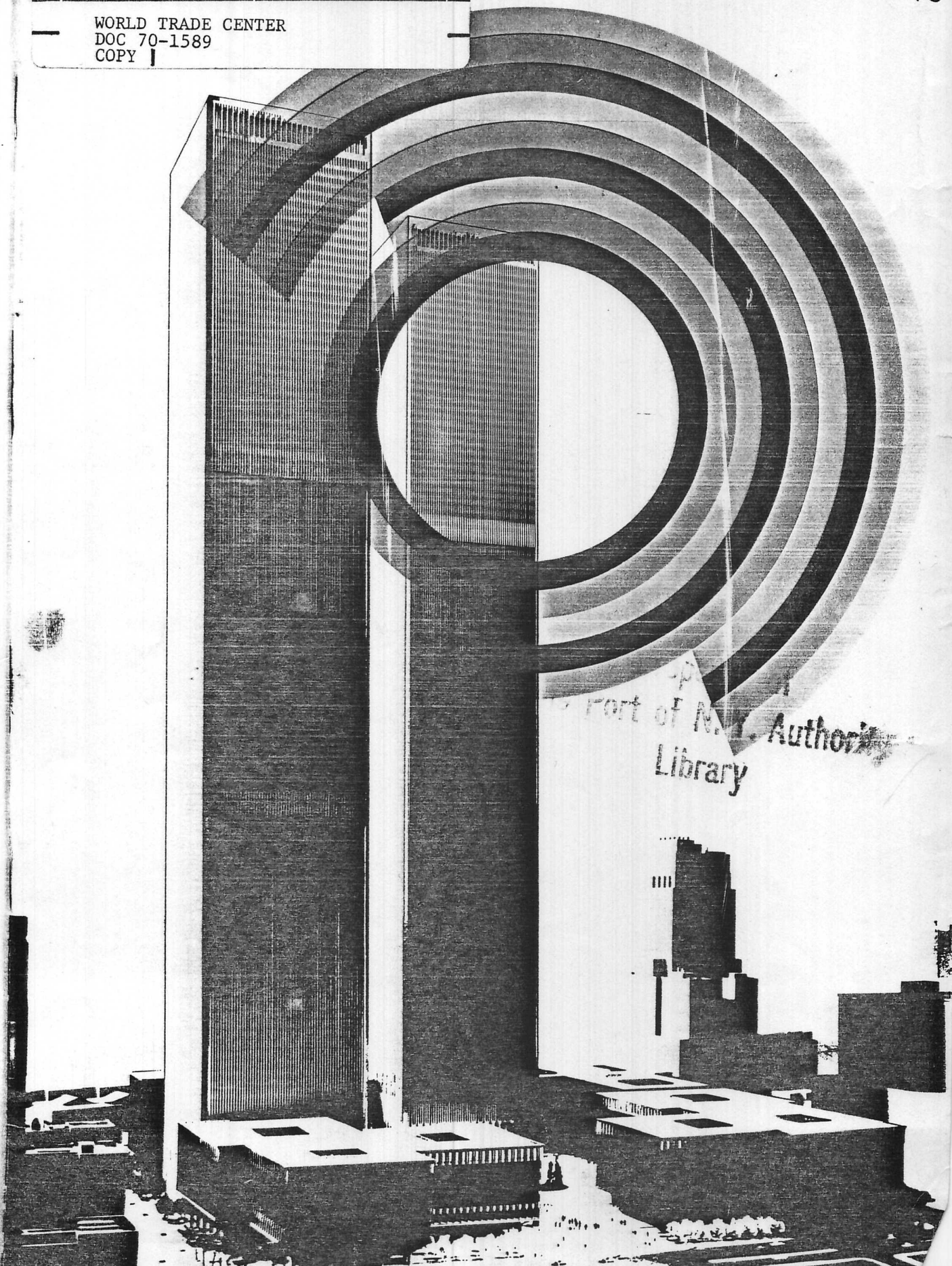


WORLD TRADE CENTER / COMMUNICATIONS

WORLD TRADE CENTER
DOC 70-1589
COPY 1

78



Port of N.Y. Authority
Library

The World Trade Center: A Business Community Like No Other



The World Trade Center will be a headquarters in the Port of New York for the world's export-import business. It will be a clearinghouse for the handling, development and expansion of international commerce.

The World Trade Center is being financed and built by The Port of New York Authority on a self-supporting basis. The construction was authorized in 1962 by the States of New York and New Jersey. Occupancy will begin in the fall of 1970; completion is scheduled for 1973.

The World Trade Center, with the tallest buildings in the world, twin towers of 110 stories rising 1,350 feet in lower Manhattan, is a building project like no other—in size, in foresight, in revolutionary concepts. And for good reason.

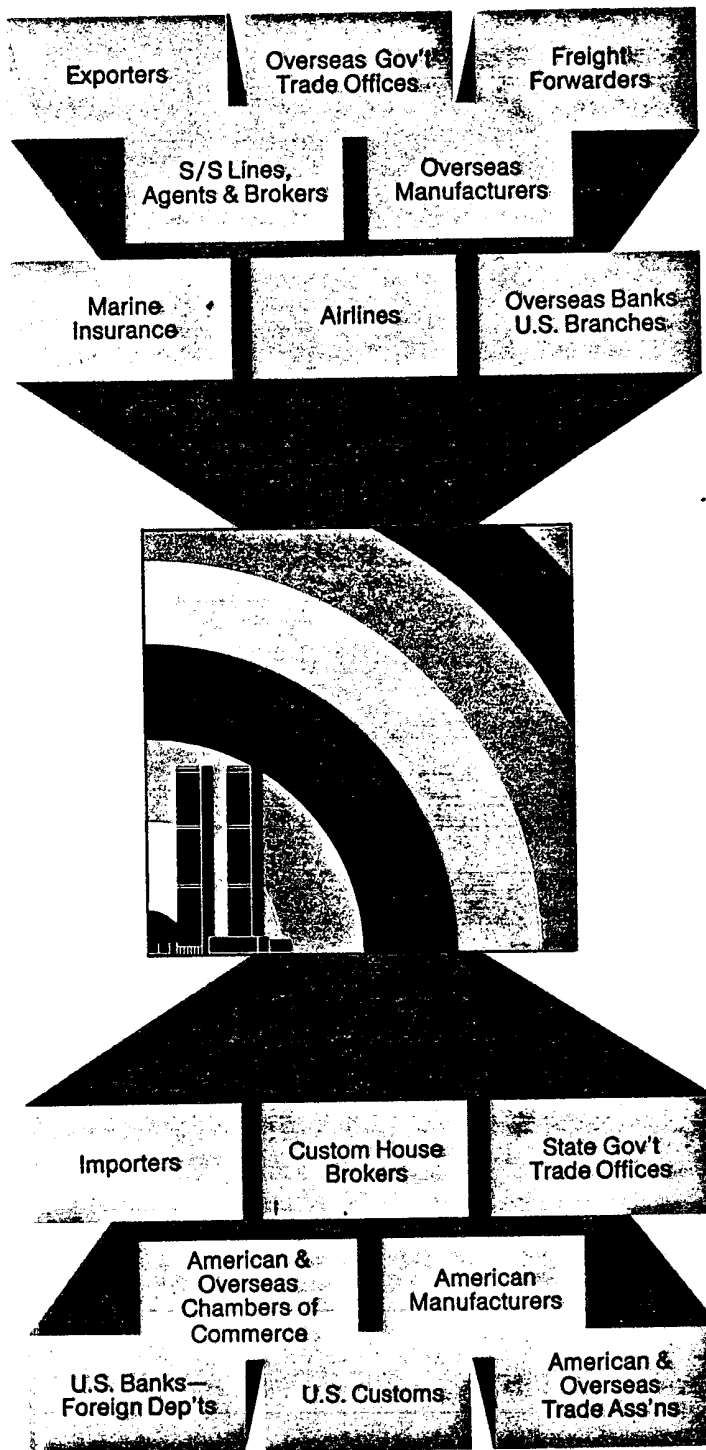
Here a world trade community, unmatched throughout the world, will be assembled in one central location, offering the greatest concentration of international trade services available anywhere.

Here every facet of world commerce will be represented—public and private organizations, including United States Customs and other government trade agencies, American and foreign manufacturers, exporters, importers, international banks, freight forwarders, customs brokers, transportation lines, chambers of commerce and trade associations, as well as commercial offices of foreign nations.

In short, the World Trade Center will be a single-purpose community directed toward the expansion of international trade and commerce among all nations.

Library of
The Port of N. Y. Authority

A Focal Point of Communications for the World Trade Community



An Integrated Communications System Second To None



World trade depends on communication.

In the World Trade Center, a new headquarters for international trade, there will be a communications system in a class by itself. It will draw upon all the advances of modern technology, combining them into a flexible system for the maximum convenience of World Trade Center tenants.

No such comprehensive, integrated system has ever before been available for commercial use.

The World Trade Center comprises an unparalleled concentration of business and government with a mutuality of interests. The unusual demands the unusual. To serve this single-purpose community of common interests, philosophies and objectives, it was clearly necessary to create a communications system which offers a new dimension in benefits to its users.

The comprehensive computer-communications network combines telephone, computer, television, radio and graphic information-handling technologies for maximum benefit to users.

Every World Trade Center tenant, large or small, can avail himself of this unprecedented system in accordance with his means and the scope of his communications needs.

The Blue Ribbon Communications Team



The integrated communications system combines the resources and expertise of two leading communications companies to design, install and operate the necessary facilities.

THE NEW YORK TELEPHONE COMPANY, which has the primary responsibility for coordinating the overall design and engineering of the integrated communications system, will install an electronic central office to provide the widest possible choice of telephone facilities, including Picturephone, Bellboy and other services.

THE RCA CORPORATION will furnish a broad range of computer and communication services to complement those offered by the New York Telephone Company. Under consideration are such services as closed circuit television service within the World Trade Center itself, video and audio recording and worldwide Telex services.

The New York Telephone Company is making full use of its Bell System resources with respect to the overall World Trade Center integrated communications system, including those of the American Telephone and Telegraph Company, Bell Telephone Laboratories, and Western Electric Company.

RCA organized its project effort under the company's Systems Development Organization. This activity receives valuable support from many RCA divisions, including NBC, RCA Global Communications, Information Systems Division, Defense Communications Systems, the RCA Laboratories and the RCA Service Company.

The two companies will jointly operate a Communications Service Center, a complete one-stop facility for assistance, consultation, and marketing, covering the varied services available to World Trade Center tenants.

Service will be available to every user, large or small. And as continuing studies uncover additional needs, the companies will be ever-ready to call new services into reality.

In brief, the integrated communications system offers to participating businessmen the full range of modern communications services—visual, oral, data processing, information storage and retrieval—and all in one convenient, central location.

Utmost flexibility is afforded at low cost, because the World Trade Center will be completely fitted from the start to offer virtually unlimited capability for the widest possible variety of communications facilities.

How The Integrated Communications System Works



At the core of the whole system is the Electronic Central Office.

The entire network is tied into this master operation. From his desk the World Trade Center tenant, through links to this office, arranges for his daily services according to his need and his budget.

The Electronic Central Office does the switching work as commanded, with advanced capabilities on either a voice or Picturephone basis.

For example, the Electronic Central Office will be capable of interconnecting the customer's communications and data-processing terminals with data banks, international communications equipment, and mobile radio services.

The electronic switching equipment in the Central Office can be programmed for a great variety of communications operations, including transmission of high-speed data and facsimile reproduction.

The Service Network



Here are some of the many distinctive services available to World Trade Center tenants.

Ever-Expanding Telephone Services:

The New York Telephone Company will offer a vast array of communication services:

Speed calling to enable you to reach frequently called numbers by dialing just two or three digits.

Automatic transfer of calls to other locations.

Quick set-up of conference calls by minimum dialing.

Direct inward dialing (CENTREX), which bypasses the switchboard.

Touch-tone service instead of the slower rotary dialing method.

Bellboy personal signaling service to keep the man on the go in immediate contact with his office. If he's away, his secretary calls his Bellboy number. A miniature receiver in his pocket buzzes, alerting him to call his office.

Picturephone service to add visual dimension. It's as easy to dial as an ordinary voice call and a number of persons can participate. Even thousands of miles apart, people meet face to face, talk with hands free, or watch the display of any kind of written, printed or graphic material. If required, a photo copy could provide a permanent record. The Picturephone view may be adjusted for close-up or wide angle.

The Swift and Tireless Computers:

The modern computer is lightning-fast, continuously ready for more work. The newest variety can accomplish more computing in a minute than one man could do in a lifetime. In theory, there is virtually no limit to the uses of the computer in the problems of handling information.

The businessman in the conventional building desiring computer capabilities normally faces a number of difficulties, including installation and high cost, and his individual requirements may be only an infinitesimal part of a computer's capacity. In the World Trade Center, however, a computer system will be an integral part of the information-communications system.

By the new and rapidly advancing art of time-sharing, a World Trade Center tenant will be able to share a large high-speed computer system. And it will be available to him instantly, and to the degree of service that he requires and wishes to buy. Charges are made only for amount of use.

Time-sharing systems will allow users to communicate directly with a central computer through easy-to-use terminal devices located in their offices. The computer moves from job to job so rapidly that each user feels he alone has the full attention of the system while solving a problem.

The flexibility of time-sharing systems permits the users to store their own programs and data for almost instantaneous access and manipulation. All such material, of course, is security-tight; the computer requires the user's "password" to give access.

Also, the user may call upon data stored in a common computer library that spans a wide range of business information. Because the Center is a unique business community whose common interest and purpose is the expansion of world trade, a

computer library of world trade information is possible. Such a "library" could provide access at the user's keyboard terminal in his office to extensive files of industry-oriented information.

As examples, these files may include daily import and export statistics, ship arrivals and departures, or marine insurance rates, as well as up-to-date foreign exchange data.

New York Telephone and RCA will offer World Trade Center tenants the computer capability for a host of standard business operations. These will include purchasing and inventory control, customer billing, payment arrangements, credit accounts, processing of orders, processing of engineering, marketing and management data, record storage and retrieval, payrolls and personnel administration. In short, the versatile computer will be able to handle the special requirements and routines of any tenant firm.

The Far-Ranging Television, Radio, Facsimile and Transmission Services:

Closed circuit television capability, interconnected with national and international terminals, will service many points within the World Trade Center. Closed circuit broadband television cameras and receivers in both color and black and white will be utilized as appropriate. Commercial television and radio can be channeled to offices, hotel rooms and public rooms. Special World Trade Center business-oriented TV programs are contemplated.

All the many existing services of RCA Global Communications will be readily available, ranging from photographic transmission to intercontinental television.

Among other services and facilities under study are facsimile reproduction, automatic freight and passenger reservation service, paging systems, handwriting (teletype) machines, audio and video

tape recording service, document transmission services, and a central library of tapes and films that can be dialed for local presentation.

Still more services of promise to World Trade Center tenants are being studied. For example, an available aid would be the automatic assembly of ship manifests within a centralized computer by way of a remote input device located in the shipping agent's office. Other possibilities include the automatic control of available ship cargo capacity, and similarly, a system of air cargo reservations with automatic cube and weight inventory control. Again, international high speed communications would make possible the delivery of a ship's manifest at any world port and the transmission of airway bills and customs documents to all principal cities and international airports.

Tie-In With Information Center

One very important function of these facilities will be to give Trade Center tenants rapid, convenient access to the World Trade Information Center.

This will be a facility that will provide tenants and visitors with one point of access to the diverse information sources and services of the Trade Center. The prime purpose of the Information Center is to meet the information needs of World Trade Center tenants and to assist business visitors in gaining the full benefit of their stay at the Center.

Questions will be handled directly by the Information Center staff, or through special communications links to one or more appropriate information sources within or outside The World Trade Center. The communications suppliers will be working closely with the Port Authority to assure the effectiveness of the Information Center. One potential Information Center advantage is an electronic directory of all Trade Center tenants by organization, product, and service.

Benefits To World Trade Center Tenants



Convenience

The Integrated Communications System provides a comprehensive communications capability at the desk of every World Trade Center tenant. The very best in communication and information facilities is to be literally woven into The World Trade Center. The combination is a communication first available nowhere else.

Economy

The World Trade Center's 50,000 people, virtually all with the same interests and purposes in world commerce, form a business community like no other. Ten, or a hundred, persons can use the same data service simultaneously. Everybody can be served together with greater efficiency and at reduced cost.

Flexibility

All parts of the Integrated Communications System are tied together in numerous possible combinations. The tenant in The World Trade Center can buy as little or as much as he requires and use the terminal equipment in his office in a variety of ways.

Service

Planning, development and improvement are continuous. The tenant's needs are continuously under study. As new requirements develop, new services are created. Day-to-day technical assistance will be provided by a staff of communications and computer experts readily available in-house.

Launching The Program



The Integrated Communications System represents a vast reservoir of services and capabilities ready to be tapped by Trade Center tenants. The nature, extent and combination of these services, of course, will vary from tenant to tenant. Thus, a blue ribbon team of communications specialists has been formed within New York Telephone and RCA to study these varying needs in detail. The two organizations have established special units to work exclusively on The World Trade Center. The two units, backed by the research and development talents of their respective organizations, are working together on a highly coordinated basis, in close cooperation with the Port Authority.

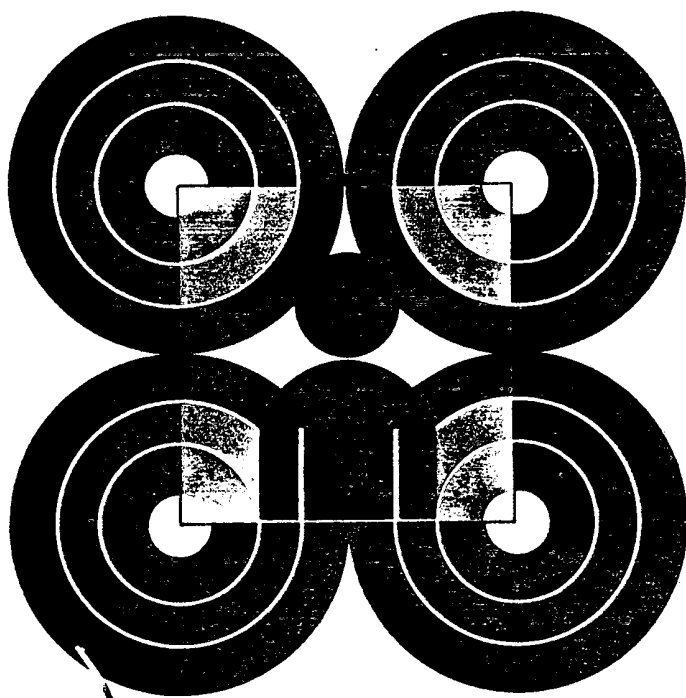
But how does The World Trade Center tenant take advantage of all this? How can these imposing resources be marshalled to benefit an individual business?

Here is what will happen. World Trade Center tenants will be contacted by the communications team. Business activities and interests will be carefully analyzed, and communications specialists will delve into virtually every significant facet of tenant activity in the Trade Center. All this will lead to proposals by the communications team to each tenant — proposals that are tailored to the tenant's business objectives, operations, and of equal importance, to his budget. Alternatives will be presented so that tenants will have an opportunity to choose from a range of available services. The common activities and objectives of tenants in the Trade Center will be analyzed, and where possible, special group services will be developed and offered to produce further economies that would not otherwise be achievable.

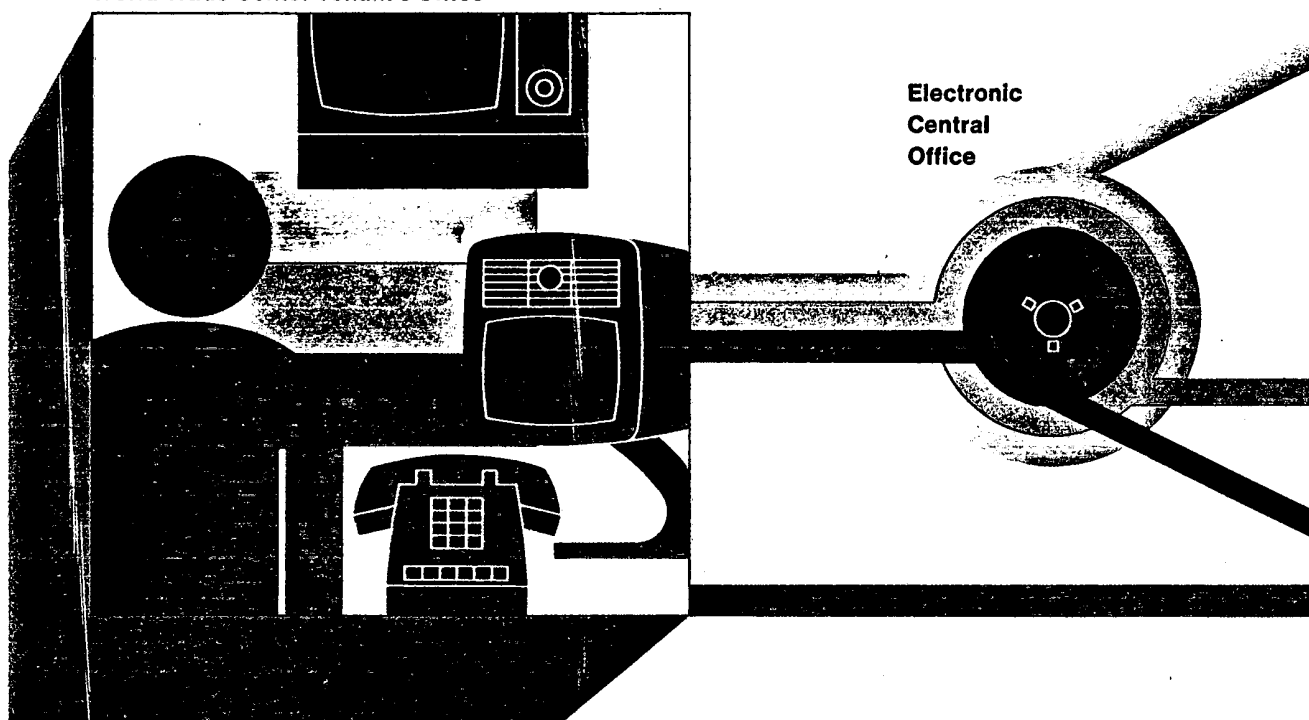
Keeping Ahead



The data processing and information revolution has only begun. The World Trade Center is in the vanguard of this dynamic activity with its integrated communications system. On the horizon is a potential international network of trade centers with the New York computers talking to the Tokyo computer as a matter of routine. Today's achievements will unquestionably be surpassed in directions yet uncertain. But each and every advance in communications knowledge will most certainly find a quick and proper place in The World Trade Center.



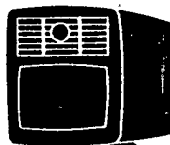
World Trade Center Tenant's Office



**Electronic
Central
Office**

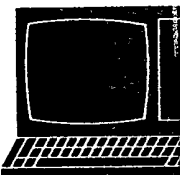
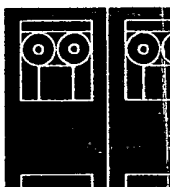
Telephone Services

Picturephone
Speed Calling
Automatic Call Transfer
Direct Inward Dialing (CENTREX)
Touch-Tone Service
Overseas Direct Dialing
Conference Calls
Automatic Pickup & Call Holding
Bellboy Personal Signaling Service
Data Transmission



Shared Time Computer Services

Data Storage
Data Retrieval
Business Operations
Accounting Personnel
Purchasing, etc.
Library Information Access



Commissioners

James C. Kellogg, III,
Chairman

Ben Regan,
Vice Chairman

Howard S. Cullman,
Honorary Chairman

Hoyt Ammidon

John J. Clancy

Charles W. Engelhard

Alexander Halpern

Walter Henry Jones

Bernard J. Lasker

William J. Ronan

William A. Sternkopf, Jr.

W. Paul Stillman

Austin J. Tobin,
Executive Director

Guy F. Tozzoli,
Director, World Trade Department

The Port of New York Authority
111 Eighth Avenue
New York, New York 10011

