



---

The Space Congress® Proceedings

1962 - The Challenging Pace of the Race to Space

---

Oct 27th, 2:00 PM - 5:00 PM

# Technical Workshop - Space Age Industry Requirements

Canaveral Council of Technical Societies

Follow this and additional works at: <http://commons.erau.edu/space-congress-proceedings>

---

## Scholarly Commons Citation

Canaveral Council of Technical Societies, "Technical Workshop - Space Age Industry Requirements" (October 27, 1962). *The Space Congress® Proceedings*. Paper 2.

<http://commons.erau.edu/space-congress-proceedings/proceedings-1962/october-27-1962/2>

This Event is brought to you for free and open access by the Conferences at ERAU Scholarly Commons. It has been accepted for inclusion in The Space Congress® Proceedings by an authorized administrator of ERAU Scholarly Commons. For more information, please contact [commons@erau.edu](mailto:commons@erau.edu).

**EMBRY-RIDDLE**  
Aeronautical University,<sup>™</sup>  
SCHOLARLY COMMONS

Moderator - Mr. G. G. Geelan, Dr., STL Titan Project Office, Norton AFB, Calif.  
Panelists - Mr. T. R. Brown, Jr., Dir., Fla. Operations, Chrysler Corp., Melbourne, Fla.  
Hon J. Owen Eubank, Mayor, Daytona Beach, Florida  
Mr. Paul G. Fritschel, Mgr., Program Admin., G.E. Command Systems Division,  
Daytona Beach, Florida  
Mr. Carroll Towne, Office of Administration, NASA, Washington, D. C.

### SPACE AGE INDUSTRY REQUIREMENTS - WORKSHOP

In this workshop, the two industry representatives presented their particular industry's requirements for a site for future operations. The answers or solutions to the requirements presented by industry were discussed by Mayor Eubank and Mr. Towne.

The first speaker was Mr. Fritschel, who summarized general industry requirements for choosing a site for future operations. Mr. Fritschel first pointed out there are many factors that prompt an industry to either expand or move. To define these factors, it is necessary for the industry to thoroughly study its business and to project it as far as possible into the future. Specific location criteria and the site criteria must then be established within a general locality and a search for that location begun. After community surveys are made for several possible sites, a preliminary site decision within the locality is made. Site options are then obtained and detailed economic studies are made. When the results of the studies have been thoroughly considered, a site is selected.

The second speaker was Mr. Brown of Chrysler. Mr. Brown first emphasized that industrial requirements are always based on the nature of the operations to be undertaken. The definition of these requirements is often predicated on a market forecast which is conducted before an industry moves into an area. Examples of these are the recent GE move to Daytona and the Chrysler-Melbourne operation.

Ten years ago the objectives of most of the major companies were to gain cognizance over weapons systems as prime contractors. Today their goals are to become stage contractors, or to become prime suppliers of major systems of space vehicles.

Another realignment in industry thinking is in industrial planning and facilities and equipment. Space programs define new concepts in facilities. In Chrysler's case, booster size and transportation problems and the government's decision on facilities location were important considerations in the selection of the New Orleans plant for the Saturn. These were also important considerations when the Melbourne facility was selected for launch support at Cape Canaveral.

When Chrysler was planning these ventures, proximity to the customer, to suppliers, and to existing manpower resources, community support, the local tax picture, and utilities availability were considered. The possible loss of a contract was also considered, as it would involve Chrysler in the problem of relocating workers and in attempting to obtain different jobs for them.

When a new plant is started, a small cadre of people, possibly as many as 300, is moved; the balance of the people are either hired locally, or moved in later.

It is important then to consider the availability of trained personnel in an area, as a new facility must be located where this manpower resource exists. Chrysler selected the Cape Canaveral area for still another reason: to be ever-cognizant of the rapidly changing launch technology field. Since in the Melbourne facility Chrysler designs and manufactures launch equipment, it must be close to the product site not only to see where competitors are going but also to determine what the customer requires.

Another important industry requirement in choosing a new site is sufficient data on wage levels. If the company is on existing contracts, management has already committed itself in the form of an established maximum wage. This wage may or may not be an acceptable wage in a new area, and the company must predict what the acceptable wage might be.

Another major consideration in hiring a substantial number of people to staff a major facility is the availability of educational facilities, housing, religious organizations, and recreational areas for the families. These are important, as employees must be satisfied with all aspects of a company if they are to stay. Schools are certainly important. In Brevard County, industry is providing a substantial amount of money to support the Brevard Engineering College. Industry has provided a number of advisors and members on committees in the community to assist in the planning.

Another important point is that a company must be accepted in the social and business community in the local area. One company cannot be the single force to elevate or wreck the economic life of a community. Losses of contracts can cause a complete city to be economically unstable. Therefore, local efforts have to be directed toward broadening the economic base of the community. Small businesses have to grow together and plans have to be drawn up by the community and industry, working together, for good times and for bad times.

Mr. Towne spoke about the impact of the Federal space programs on the Cape Canaveral area. The labor force in the Cape region, Mr. Towne stated, is already exhausted as far as local resources are concerned, and people have to be brought in from outside. There is now a problem of housing temporary workers for a period so short that private investment isn't willing to go in and provide adequate housing unaided. The water supply and water distribution systems in some cases can turn out to be limiting factors in any community, as can the availability of sanitary sewers. Until fairly recently, much of the Cape Canaveral region was on a septic tank economy. This is a very risky basis for disposal of waste if there is a large volume of population. Fortunately, the local government here has become aware of this and is taking steps to try and remedy the problem.

The transportation resources of this area are another problem. Much has been done in the Cape region over the last year to try to cope with the problem of general transportation and with the special problem of traveling to and from work. Getting to work at the Cape has been a severe problem and will be for some time to come. However, with the new causeways that are planned and are under construction, and with the fourlaning of the highways on the mainland, by the end of fiscal '64 there is some prospect that the traffic situation will have eased. But, between July 1963 and July 1964 it's going to be difficult because traffic will be increasing at a time when only one of the new causeways will be available.

Mr. Towne emphasized that the retail shopping resources in the Cape Canaveral area are going to have to expand to take care of this increase in population, as will the schools. The schools, however, will receive federal aid, as this is a federal impact area.

The hospital and medical resources are deficient in the Cape region; this is a problem which must be solved soon.

The industrial resources in the region are building up and there undoubtedly will be much more brought in as the space program expands.

The Regional Planning Council has been formed as a legally constituted planning organization under the state laws, eligible for federal assistance under Section 701 of the Urban Renewal Act. The homebuilders, obviously, play a key part in showing housing that is needed to permit the recruitment of workers and to keep them here. The State Development Commission has two major functions in the Cape region. It gives assistance to the Regional Planning Council and to the local planning commissions through the State Planning Division. The commission also has an Industrial Development Division which assists the communities in attracting new industries to the region.

Mayor Eubank then explained how Daytona worked to prepare itself for a large industry. He stated that Daytona was fortunate to have some retired executives who gave the city the benefit of long years of experience in their own programs of relocating industry. Several years ago Daytona realized that the future economy of the area would depend on getting something besides tourists. A dozen task force groups started programs to educate and coordinate the community to put it in a receptive mood for industry. With this coordinated effort, the community, after a period of years, was in a position to accept industry. A small bond issue, to improve water and sewerage facilities, unanimously passed, and when an industry came in and required that the city suddenly spend \$350,000 or \$400,000 in order to improve a facility, the community was delighted to do it.

From a community standpoint, then, it takes many years of building up to the reception of industry. It takes hard work and effort on the part of all of the citizens to develop a cultural complex, to develop a school system, and to create enough capital spending for housing to take care of a large influx of new employees.

At the conclusion of the talks, the audience was invited to participate in a question and answer session.

#### QUESTION

How does politics fit in when industry is making a plant site selection?

#### ANSWER (Mr. Brown)

When Chrysler selected the New Orleans facility to build the S1, it was pre-designated as a contract stipulation. Chrysler selected the site local to Cape Canaveral on the basis of the availability of a market. Transportation and the labor pool had to be considered and, of course, Chrysler was concerned with locating adjacent to the customer.

#### QUESTION

In the Golden Triangle, the Daytona Beach, Orlando, Vero Beach area, there are a considerable number of municipalities. What has been the degree of cooperation among the municipalities in facing the space problem?

ANSWER (Mr. Eubank)

The cooperation has been excellent between community and county governments. They have created a five man study committee consisting of some ex-county and city officials and business leaders of each community. The commission meets regularly and makes its recommendations to the Florida Development Commission which, in turn, works through the FAA.

QUESTION

What Apollo requirements were placed on General Electric?

ANSWER (Mr. Fritchel)

The Apollo contract General Electric has in support of NASA is for rendering assistance in integration checkout and reliability assessment. It is essentially a scientific operation as opposed to a large hardware manufacturing operation. However, in support of such a scientific effort there will be some analytical laboratories used.

QUESTION

How could an area acquaint industry of the availability of sites?

ANSWER (Mr. Towne)

The Florida Development Commission has published extensive literature on available sites. In addition, industry normally gets visits from interested areas and corporate planning committees which acquaint companies with the local picture.

QUESTION

What types of subcontractors are needed in the Cape area?

ANSWER (Mr. Brown)

There is a need in this community for certain supporting types of subcontractors. For example, some precision machine work might be required, or a quick-reaction capability in the form of a large duplicating or print shop. There will undoubtedly be subcontractors attracted into the area. At the moment, some companies have to go as far away as Atlanta or New York for some specialized types of subcontracting.

Chrysler's experience at the Cape indicated the need of a rather broad front for all types of subcontractors, running from shops that could do machine work to organizations that would clean parts, perform inspections, and laboratory services.

QUESTION

How does the Urban Renewal Act operate in this area?

ANSWER (Mr. Towne)

The Housing and Home Finance Agency provides technical assistance to communities in developing a workable plan for community improvement. This is generally oriented to physical planning, though it also gets involved, to some extent, in planning municipal economics and municipal administration. Historically, this assistance is based upon the amendments to the Housing Act that are oriented toward urban

renewal efforts and is not intended, or wasn't intended at the outset, to be used for assisting a community in meeting a federal impact. However, the Housing Agency might find it feasible to adapt this workable program to these impacted communities in the vicinity of the Cape.

One of the features of a workable program is the development of a comprehensive plan to guide the physical development of a city, a county, or a region. Under the provisions of the Urban Renewal Administration, federal grants are made to communities that apply for such planning assistance. There are certain things these communities must do to qualify. The Six County Regional Planning Council in the vicinity of the Cape has applied for, and has secured, a 701 grant. Several other communities in this region (Cocoa Beach, Cocoa, and Titusville) have had such grants. These are grants of funds to help the communities develop physical plans that will guide the development of their communities; it's extraordinarily important now that this be done, because the control of land use through adequate land use plans, zoning ordinances, and subdivision controls is essential to prevent a disorderly growth in the community.

The Federal Housing Administration is in the business of insuring mortgages on residential properties, and has a great deal to do with controlling the nature and extent of the physical development in the region. They are required, under the law, to approve government commitments, issuing mortgages to only those developments that meet certain physical requirements and certain minimum standards.

#### QUESTION

How are communities affected by sudden population growths?

#### ANSWER (Mr. Towne)

Some elements in any community will benefit by a rapid growth. The merchants, as a class, will usually benefit. However, the small independent grocery store operator is likely to be washed out by the chain coming when the market gets big enough.

The home builders, of course, prosper as the population goes up. Conversely, the municipal governments suffer. Though the utility departments may prosper, the police and the fire protection and other non-revenue services take a terrible beating because new residents do not start paying taxes immediately.

The communities on the fringe are not going to get as much of the business as the communities toward the hub, or those that are most conveniently located. This means that the Melbourne complex in the southern tip is not going to profit to the extent that it did when Patrick was built because it's not close enough. It's beginning to be a little bit on the fringe. Conversely, Cocoa and Titusville are going to expand rapidly. The new causeways that are being built will have an effect upon business.

#### QUESTION

What is being done to solve the problem of lack of medical facilities?

ANSWER. (Mr. Towne)

Federal laws are providing for relief of communities that are suffering from hospital deficiencies. The Hill-Burton Act is a matching fund program in which the public health service is authorized to provide funds to any hospital that the State Hospital Plan proves should be expanded. The matching funds that are required under the Hill-Burton Act must come from local sources. If the communities can't find the money to support their part of the expense, there simply is no relief available under present legislation. It's very difficult presently to get through Congress special legislation applying to a highly localized situation because such a precedent, Congress fears, would apply country-wide.

QUESTION

How have community improvements in the area been paid for?

ANSWER (Mr. Eubank)

Most of the improvements in this area have been through revenue certificates and have not increased the millage. Taxes have decreased some within the last ten years.