

# A WEST COAST LOOK AT

## SCHEDULED HELICOPTER SERVICE

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### S-61 Utilization

Three Sikorsky S-61L's operated by Los Angeles Airways have each spent more than 10,000 hrs in the air since they entered service in 1962. A fourth twin-turbine S-61L has passed the 9600-hr mark.

L.A. Airways now operates six S-61L's and has ordered a seventh. The choppers average eight to 10 hrs of flight each day.

growing public acceptance of the helicopter, stemming in part from its proved usefulness for air mobility in Vietnam and its steady use by President Johnson and other public officials. Perhaps even more important in the growing public acceptance of the helicopter is the sense of frustration of air travelers who, either prior to departure or on

arrival, are subjected to the "ground barrier" problem of bumper-to-bumper traffic and overloaded parking lots. This is a problem which almost certainly will get far worse before it gets better, if Federal Aviation Administration estimates of some 740 million air passengers at 22 major city airports by 1980 are anywhere near accurate.

THE SIKORSKY S-61L is one of six in the L. A. Airways fleet.

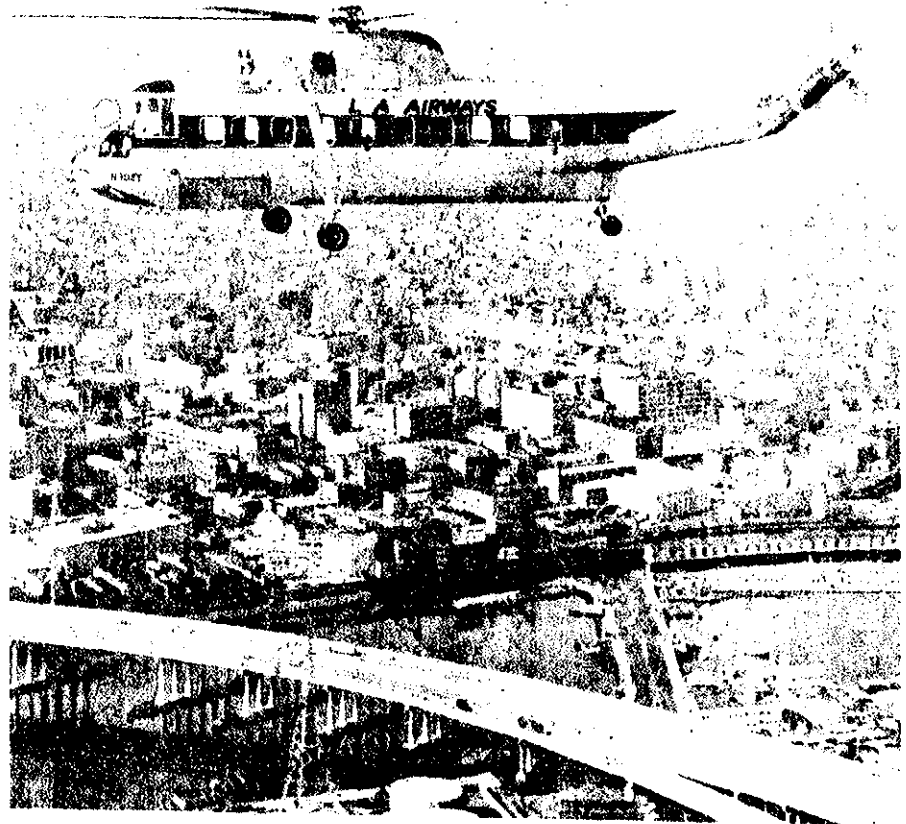
■ The future of scheduled helicopter service on the West Coast is assured, regardless of current headaches. This is almost an article of faith of Clarence M. Belinn, president of Los Angeles Airways and of M. F. Bagan, of the Oakland-based SFO Helicopter Airlines, Inc.

Yet, each man looks at current problems and the future from a different point of view—partially because the situation in the Los Angeles area is different from that of the San Francisco-Oakland area and partially because the experience of the two men is different.

Belinn, with the experience of some 21 years of scheduled helicopter service in the Los Angeles area, started with the era of the small, single-engine, mail-carrying machine and progressed through the period of the 10-passenger Sikorsky S-55 to the 28-passenger, twin-engine, turbine-powered Sikorsky S-61.

Bagan, after looking at the air transport industry from the standpoint of the Federal government (he was an attorney at CAB) and after a period with L. A. Airways, moved north to found SFO about six years ago, and started without subsidies.

Both men believe that there is



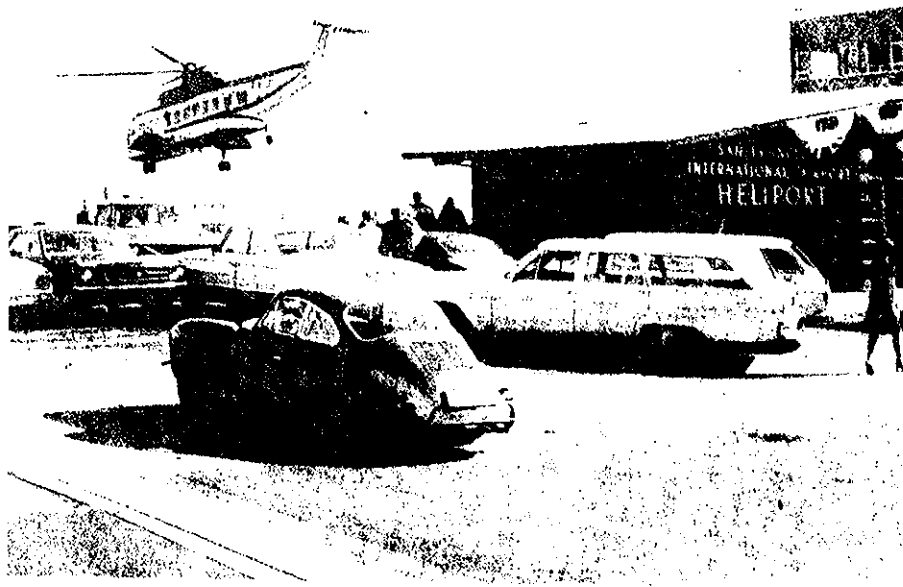
VERTICAL WORLD

Bagan believes that it is time for the manufacturers to stop talking and to produce the new equipment that can help to reduce seat-mile costs and break even load factors. He says he is a little tired of brochuremanship; he would like to see the equipment that, he hears, someday might make a dent in the increasingly difficult job of moving passengers to and from the new San Francisco Airport and the Oakland and San Jose Municipal Airports—all three of which are in the process of expanding to meet the 1980 load.

Belinn sees hardware as just one problem. He thinks more attention must be paid to such problems as the "baggage barrier" and passenger convenience. He thinks that economics dictates construction of fewer, more centralized and more convenient heliports. His company is, therefore, pushing the development of a new "mixed mode" transportation center. The center would be a multi-story structure that would include facilities related to transport and commerce, including restaurants, conference rooms and offices, immediately below a 200-by-400-ft rooftop heliport. This would be big enough to take 90 passenger helicopters, when and if built. The center floors would contain a parking area for several hundred cars. Airline ticket offices, car rental, rapid transit and bus terminals would be on the ground floor. A motel would either be a part of or adjacent to the terminal. Studies indicate that at least 10 such facilities are needed in the Los Angeles area at this time. With Pomona pioneering the concept, indications are that North Hollywood, Pasadena, Covina, and San Bernardino, all on LAA's route, will watch what happens in Pomona with interest. This idea could ultimately provide the solution for the passenger who arrives from the east and doesn't want to ask his wife or son to drive 50 or 60 miles to the airport on a Sunday night.

#### Control the Air Space

Air congestion also worries Belinn. He says that passenger inconvenience and delays occur not only in conventional transports, but also seriously affect helicopter operations. "We are often held on the ground here; we can climb up in the air, but we must on instruments



A DOWNTOWN HELIPORT was opened to assure easy travel between San Francisco's city center, nearby airports and surrounding suburban areas. The heliport, with a 16,000-sq. ft landing pad handles 34 flights a day, 17 in and 17 out.

for about as long a time as it takes to make the flight." He believes that the primary solution is to bring the air corridors and the whole metropolitan air space under absolute control, even if it means keeping some elements of aviation out of the congested areas. He argues that small marine craft have been forced out of the big harbors into marinas and, so, why not small aircraft?

Ultimately, L. A. Airways, which now has a certificate to serve an area within a 50-mile radius of the downtown post office, will expand its service to cover Catalina Island, Ontario Airport and additional locations in the San Fernando Valley. Some 200 cities are served now. As the Southern California satellite airport system is developed, service, hopefully, will cover those airports. Belinn believes, however, that helicopters are still bound too much by fixed-wing rules. He thinks that a way has to be developed to allow the helicopters to take greater advantage of their inherent capabilities for operation in zero-zero weather, a much more real problem to operators in the Los Angeles area than to those in the area around San Francisco.

What worries Mike Bagan, among other things, is that it costs just about as much to maintain an S-61 as it does to maintain a 707. He says that the seat-mile cost on the 707 is about 6½ to 7 cents, while the cost of the S-61 is 20 to 38 cents per seat-mile. If a more economical helicopter were available in the Bay area, he believes that SFO couldn't keep up with the business—and there is evidence to support him. In a recent speech, Bagan noted that scheduled helicopter service showed a passenger growth of 16% in 1967, while SFO showed a growth rate of 23½%. In 1967, it should be noted that L. A. Airways showed a growth rate of 28%.

The load factor of SFO was 39% in 1967, as compared with a load factor of 33% in 1966; the break-even load factor for SFO is 49%. With the opening of the new downtown San Francisco heliport at the Ferry Building, Bagan expects the company to reach its break-even load factor this summer and believes that it will be exceeded in 1969.

Bagan thinks the new heliport will be a major factor in encouraging the airlines to sell helicopter service as part of package transportation to

and from San Francisco. He is also hopeful that a proposed new heliport in connection with the South Market Street Renewal Project will be even more useful in promoting the ultimate aim of the company: to tie together the three airports serving the Bay area.

### **New Equipment Essential**

To service this market however, he believes new equipment is essential. Bagan told the Security Analysts recently: "Our studies indicate that the next feasible piece of equipment that will be put into commercial service is the Sikorsky S-65. This helicopter will carry from 60 to 90 passengers, depending on configuration. The S-65 cruising speed will be approximately 160 kts. The manufacturer claims that its direct operating cost per available seat mile would be 35 to 50% less than the S-61's we now operate." He added: "Although you may read of developments of other equipment, in our opinion the day on which they will be available for commercial passenger operations is not as close as the designers and manufacturers would have you believe."

Lloyd MacDonald, one of SFO's two senior vice-presidents, discussed the role of SFO in the new San Francisco air terminal development. He noted that current projections indicated that there would be 20 million passengers serviced by the new airport by 1980. SFO now has about 3% of a market of 12 million. Assuming that the market penetration of 3% remained static, an unlikely fact in view of current congestion in and out of San Francisco, SFO would be carrying a minimum of 600,000 by 1980.

MacDonald said that the new terminal would have 80 to 90 good parking positions for aircraft and three good helicopter locations, originally at ground level, but ultimately, perhaps, on the top of the roof of an enormous center parking garage. He noted that highway access to the new terminal would still be a problem, and that the Bay Area Rapid Transit System (BART) will not service the airport. While there is some talk of the possibility of a separate transportation system for the airport, he does not think it is likely, and believes that the ulti-

mate answer will either be the frustration of driving to the airport, or taking what San Franciscans have affectionately called "the Hurry Birds."

The passenger explosion hasn't hit just the San Francisco Airport, MacDonald said. It is also hitting Oakland, which has become the center of north-south traffic. It now handles about one million passengers a year, and, in a real sense, is becoming an inter-airport transfer facility. SFO now has its operations, including a flourishing maintenance business, centralized in that airport.

San Jose is growing also, MacDonald continued. Now serving about 400,000 passengers, it will ultimately become a part of the SFO plan to provide interconnect service between the three major airports. SFO also has other ideas for expansion. It is exploring the possibilities of extending service to such areas as Travis AFB, Santa Clara, the Livermore/Pleasanton areas and San Rafael, among others. Its ultimate goal is to provide service from downtown San Francisco to downtown Sacramento.

### **Hard to Make a Profit**

However, despite the dramatic growth in volume of passengers carried and the bright promise of increasing demands, the helicopter companies still find it virtually impossible to operate at a profit because of increasing costs. Nothing much can be done about the cost of handling passengers, however. What is really worrisome, according to Mike Bagan, is the high cost of maintenance. In a recent paper, he said: "In 1966, in our SFO operations, for every hr one of our helicopters flew, we spent 11 man-hrs maintaining it."

As he sees it, "The manufacturers are letting us down with regard to taking steps to give us the integrity we require in the equipment we operate. There has been no real progress on their part in assisting the operators in increasing their reliability and reducing their maintenance costs. All of the commercial operators are relatively small companies and cannot afford large engineering staffs to do the technical studies required to improve the performance record of the helicopters. We naturally look to the manu-

facturers for help in this area but that help has not been forthcoming."

Bagan also notes that many of the cost and operating problems are related to actual maintenance. He cites, as an example, the problem of ingestion of foreign matter through the jet intake. Despite requests for help, Bagan said, "we have no protective device from the manufacturer." In order to solve the problem, the company designed, built and obtained approval of a screening device. Engine maintenance costs, he says, are as high as \$25.50 per engine hr, as compared with an hourly cost of about \$10 per hr for maintaining an engine on fixed-wing jets.

The problem with the helicopter itself is very much the same, Bagan says. He complains that "the reliability of the major dynamic components is very poor." To illustrate what the problem of spare parts really means, Bagan told the following story: "One of our foremen has facetiously remarked that the manufacturer should give us the helicopter and make his profit on the replacement parts." Bagan admits this is an exaggeration, but, as in most exaggerations, there is a grain of truth.

The whole problem of helicopter economics that led to the real requirement for aid—first in the form of subsidies and, more recently, in the form of help from the airlines—shows up in an analysis of the information contained in the reports filed by the helicopter carriers with the Civil Aeronautics Board for 1966. The figures show, Bagan said, a yield per revenue passenger mile for New York Airways of \$0.4890. Cost per available seat mile is \$0.4907, and the break-even passenger load factor is 100.3%—obviously impossible. He said that this compares with L. A. Airways' yield of \$0.1931, a cost of \$0.1609, and a break-even load factor of 83.3%. SFO's break-even load factor is 49.9%, based on a cost of \$0.1954 and a yield of \$0.3919.

Bagan sees little chance for improvement through fare increases. Real solution of the economic problems lies in increased utilization, which seems just over the horizon, and reduction of costs, which will necessitate real help from the manufacturers.

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