

Birds, Aircraft and the 'Tower of Light'

Ornithologist Insures That Lights Don't Confuse Migrating Flocks; LaGuardia Can Extinguish Beacons at Pilots' Request

ALTHOUGH the 12-billion candlepower "Tower of Light" will serve as a welcome beacon to millions of people attending the World's Fair, Electric Power & Light Exhibit, Inc., gave careful consideration to the effect of the lights on aircraft and migratory birds.

About 150 feet from the EP&LE exhibit, an ornithologist — a graduate student of Rutgers University — sits, night after night, his binoculars trained on the beam of light, to study the pattern of birds which may fly through the light. If he senses danger to the birds, he has the power immediately to extinguish the lights.

Exhibit Given 'Go-ahead'

A few weeks before the opening of the Fair, FAA and Audubon Society officials conducted tests with most of the big lights on, and gave the exhibit a "go-ahead" signal.

In the spring and fall of 1961, while the exhibit was still in the planning stage, EP&LE representatives, in cooperation with the Federal Aviation Agency, the Air Line Pilots Association, and the National Audubon Society, conducted numerous tests with 3.2 billion candlepower of light aimed at the sky.

In the spring of that year a battery of searchlights was set up at Flushing Meadow Park for intensive tests. Nearly all the powerful arc lights available in New York were collected, and searchlights and crews were brought in from as far away as Baltimore. All these lights together, however, produced an intensity of only about one-third of that of the Tower of Light.

For 10 nights, in all kinds of weather conditions — from fair skies to minimum flying ceilings — the blazing lights were turned skyward at a command from LaGuardia Field. A Federal Aviation Agency plane carried observers through and around the light beam, checking it from all directions in varying weather.

Air line pilots flying regularly scheduled flights in and out of LaGuardia said that the brilliant beam did not appear to present a problem to LaGuardia's air

operations. Official approval of the light specified that the beam remain stationary at all times. As an additional precautionary measure, a switch has been installed at LaGuardia control tower for the duration of the World's Fair, which will instantly extinguish the Tower of Light should a pilot request it.

Reaction of Flocks

In October, 1961 — during the bird migratory season — powerful searchlights again were assembled on the World's Fair grounds. The National Audubon Society and the U. S. Wildlife Service were consulted for arrangements for these tests of the reaction of migrating birds to the Tower of Light beam.

The south end of Long Island, beyond the Fair site, lies in one of the major flyways of migrating birds. When the tests were made, flocks of birds, flying directly through the beam, continued on their way with little or no hesitation.

In the event birds are attracted to and confused by the lights, the ornithologist maintains close liaison with LaGuardia so that pilots of aircraft can be advised of the hazard.

The ornithologist is supplied with weather reports, as well as information from Rutgers, which is studying bird migration with the aid of the Atlantic Highlands radar. In the fall, bird flocks usually travel just ahead of advancing cold fronts, and in the spring slightly behind the warm fronts. The ornithologist keeps an eye on the lights in periods of heavy migration. He will order the lights extinguished at the first sign of danger to migratory flocks.

In addition to protecting the wildlife, the watch over four migratory seasons will contribute to an important study of the volume and kind of bird flights over the area, and of the effects of bright lights on flight patterns.

The ornithologist will record the flock reactions not only to the Tower of Light, but also to the thousands of lights that will be used to illuminate other exhibits at the World's Fair.



Back in 1961, when the 12-billion-candlepower light beam which rises from the Tower of Light was just a dream, members of the Federal Aviation Agency, the Air Line Pilots Association, and the National Audubon Society gathered on the site of the Tower of Light to test the effects of the lights on birds and aircraft. All involved agencies gave the exhibit a "go-ahead" signal.