

# Orbit

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# Star Performers!

## ICOM's VHF/UHF Pairs for Satellite Communications

Oscar 10. Are you ready? Join the future of amateur satellite communications with ICOM VHF and UHF transceivers. Read why ICOM is *Simply the Best* for satellite communications.

### IC-271A/471A Twins

This new series of VHF/UHF base stations offers a combination of features and flexibility found in no other transceiver anywhere. For receiving MUF, a downward. The IC-471A features a less than 0.5 microvolt for 10dB quieting SSB receiver plus an optional mast mounted GoAs FET preamplifier with a 15dB gain.

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second to none. For MODE B use, the IC-471A features a 10W SSB transmitter with variable power control.

The same basic features of the IC-471A apply to the IC-271A and an optional internal pre-amplifier with front panel switch is available. The IC-271A

transmitter features 25W of transmitter power.

The IC-471A and the IC-271A both have options for computer interfacing. The ICOM BUS is brought out through an optional interface to the back of the radio. From this point, it may be routed to the ICOM computer

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ICOM's IC-290H and IC-490A mount together as a stackable, mountable pair that offers versatility, portability and satellite capability in an incredibly small size. These units are easily hung from your ham shack bench, taken on portable operations or used mobile.

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IC-271A VHF Multi-mode  
2 Meter / 25 Watts



IC-471A UHF Multi-mode  
430 - 450 MHz / 10 Watts

 **ICOM**  
The World System



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# Ellipsis...

*An Editorial by Harold Winard, KB2M*

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## *Florida Memories*

**B**irds swoop gracefully around the Vehicle Assembly Building, catching thermals and occasionally joining their comrades perched high above the central Florida shore. The building, known better to those who work there as the VAB, houses America's greatest and most powerful rockets just prior to their launch from one of the many pads that dot the sandy shoreline. Man's oldest vision of flight, the bird, has found a home sitting on top of a monument to the greatest and most challenging adventure above the earth's surface - space.

Last November's visit to Cape Canaveral for the launch of STS-9 and Owen Garriott's ham-in-space mission wasn't my first trip to Cape Canaveral but I had never made it past the guardhouse before. On one very warm summer's day in 1965 my father and I drove to the Cape to see America's second manned space effort — Gemini — take another step forward. The weather became a factor that day when clouds rolled in to obscure the view. Perfect visibility was an absolute necessity for many launches in those days and without it, that August day, there was simply not going to be a liftoff.

As we waited along the beach, in the company of thousands of vacationers, I peered off in the distance, hoping to be able to catch a glimpse of the rocket, or perhaps the Gemini capsule itself. It was a long way across the water from the south-gate guardhouse to the launch pad and the best I could hope for was a chance to see the rocket as it climbed above the gantry and into full view.

I padded along the road up to the guardhouse in search of something cool to drink. Unlike our temporary neighbors along the roadway, we had not brought anything with us to drink, an almost critical mistake for Florida in August. The guardhouse was closed but I caught a familiar sight — a red Coca-Cola vending machine. I savored the taste of a frosty cold bottle of Coke and dug into my pocket for change, perhaps 30 cents or so would have been sufficient for a couple of bottles.

It was broken! Not only that but the machine was a relic...something Jack Lemon must have used to acquire his bottle of Coke for "Mr. Roberts." Imagine! It was 1965 and I was in front of a Coke machine, a 1940s Coke machine...at Cape Canaveral...and it was broken to boot. With all those engineers clustered in one spot how could a single Coke machine be broken? I never discovered the answer to that one. The weather turned sour, the launch was scrubbed, and my father and I headed north.

The Cape, more modern now, is no longer the proving ground it used to be. In fact, launches are almost routine and the crowds don't turn out in the great numbers they once did. In fact, for many the thrill simply isn't there. Veteran space aficionados still come for the launches and vacationers are still in abundance in Florida, but for many, space travel is not the piece of history-in-the-making that it once was.

There's a big visitors' building at the Kennedy Spaceflight Center with a large well-stocked cafeteria, complete with Coke. They show movies to the tourists there and young children thrill to tales of daring as they watch film clips of Gemini astronauts blasting off into space.

Space travelers now ride into space in coveralls and not the pressure suits of the early days. Scientists go into space too, not just pilots, and talk is that poets, philosophers, artists, and even newsmen are not far behind. Appearances are different but have the basics changed too? Does the heart quicken and tension build when the countdown closes on zero? Do others marvel at the mighty engines that drive massive spaceships above the earth's atmosphere?

Cape Canaveral has changed a bit but for some it still holds a unique fascination. The thrill of the past there blends with the challenge of the future. Despite the many years that have gone by since the early days of the U.S. space program even space-launch veterans must feel some excitement when the big ones lift off.