

The Listener

By C. M. Stanbury II

Short-Wave Contests & Propaganda

IN recent years, short-wave contests have become a major propaganda weapon. R. Portugal annually awards three vacation trips to its sunny little realm while R. Havana, Cuba, has a similar contest going.

Late last fall Radio RSA held a DX-oriented extravaganza where SWLs were asked to hunt down some special South African frequencies. It was a fair test of tuning skill.

In addition to the two or three major prizes, most SW contests wind up dispensing a number of smaller goodies—tourist trinkets mostly. The thinking seems to be that if you offer the listener something for nothing (except a little of his time) he's more apt to buy what your station is peddling, no matter what it is. Sometimes that psychology works.

Last winter and early spring eight Marxist stations put the contest weapon to its severest test. Even now, in 1970, almost two years after the Soviet invasion of Czechoslovakia, the Communists are suffering from the bad publicity their blunder in international persuasion generated. Thus, with the 100th anniversary of Lenin's birth as an excuse, R. Moscow persuaded (without tanks, this time) R. Prague, R. Bucharest (Roumania), R. Ulan Bator (Outer Mongolia), R. Sofia (Bulgaria), R. Budapest (Hungary), R. Berlin International and Polskie Radio to stage a joint short-wave contest.

The motive behind such a gigantic undertaking obviously was to establish the idea of Marxist solidarity in the minds of international listeners. Though a large order even for this sure-fire propaganda operation, chances for success might have been improved had Moscow been able to entice R. Havana, R. Pyongyang and R. Hanoi into the contest network. Also, if the contest's theme had been made something less dogmatic than, "When and in what circumstances have you come across Lenin's name, and what does he represent to you?"

International TV. As coincidence would have it, about the time our piece on portable broadcast stations (Jan. '70 EI) was going to press, the chairman of the USSR Academy of Sciences announced that Russia had post-

poned plans for a manned flight to the moon in favor of large satellite stations which are to be launched piece by piece and then built while in orbit. Though no one seems to have taken notice, this technique of constructing satellite stations would permit Radio Moscow to beam powerful video signals directly into the home.

Such a station is possible now even without the piece-by-piece approach, but with present methods it would have an operating life of only a few hours. The new Soviet technique permits, among other things, replenishment of the fuel supply and, therefore, full-time high-power operation.

However, almost everyone, from the International Telecommunication Union on down to the VOA, is playing down the prospects for direct international broadcasting via satellites. Though not usually cited as the official reason, such transmissions would escalate the international power struggle far beyond anything tried so far. —



QSL card issued by Radio Prague in 1968 for reception of Free Czech Radio. Early this year R. Prague joined other stations in a SW contest.

El Visits Radio Americas

By TOM KNEITEL, K2AES/KS4CH

A SHORT history of the radio waves covering the last several years would have to include an awful lot of downright boring incidents and little controversy, the latter perhaps being highlighted by ruckuses involving the ownership of a certain station in Austin, Tex., the hullabaloo about international broadcasters shouldering hams around in the 40-meter band . . . and the strange assortment of facts and fantasies surrounding the Caribbean broadcasting station calling itself Radio Americas.

Way back in 1961, when the station was known as Radio Swan and sent what appeared to be coded messages ("the moon is red") during the Bay of Pigs invasion, charges that it was a secret operation of the Central Intelligence Agency were made in the press. Then secondary complications arose when respected members of the DX fraternity began doubting that the station was located where it said it was—namely on Swan Island, a lonesome little pinpoint 125 mi. north of the Honduran coast and 185 mi. southwest of Grand Cayman Island. As the years went by there were more and more DXers who seemed bent on uprooting Radio Americas and moving it to such varied Caribbean islands as Navassa and Cozumel, to Venezuela or



El Visits Radio Americas



Members of expedition with chartered DC-3 on grass landing strip at Swan (left to right): EI editor Bob Beason, pilot Francisco Hernandez, copilot Ricardo Madrigal, author Tom Kneitel. Pilot made good landing despite primitive strip and crosswind.

Radio Americas broadcast-band antennas radiate a signal on 1157 kc. Tuning shack is at base of the left (eastern) tower, which gets more power than the other one, producing a directional signal pattern. This cleared area is carpeted with rich grass. Normal scrub jungle vegetation is seen in background.

even aboard a ship or aircraft. The hot speculation about the real location of the station continued long after the question of whether it was a CIA operation seemed to be settled to everybody's satisfaction—in the affirmative.

When it bothered to comment at all, the management of R. Americas maintained that it knew where its station was—and that it was on Swan. But such statements seemed only to confirm the suspicion that R. Americas *must* be somewhere else.

It was a hopeless puzzle that could not be solved with accuracy because almost nobody

seemed ever to have been to Swan, except for those few people who belonged there. Rumor had it that the island was off limits to anybody not actually working for or authorized by the government or one of its contractors. So far as anyone could determine, the only outsiders to see Swan in recent years were an elderly couple from New England who went there to count birds.

In view of all this, EI's editors decided that a small DXpedition to Swan Island would be sportingly difficult to pull off but just the thing to solve the controversy. Those chosen to go were EI editor Bob Beason and

THE SECRET ambition of a great many shortwave listeners is to single-handedly uncover a piece of international intrigue. The radio waves themselves offer enormous opportunities to do just that. For example, beginning with a single piece of unusual transmission during the Cuban

DX'ING THE CLANDESTINE SHORTWAVE STATIONS

missile crisis, when *Radio Americas* switched ID's with VOA sites (including the historic one at Brentwood, now of ITT SW facsimile fame), we determined that it was primarily a military, rather than a CIA, operation. We further learned that it was capable of transmitting from secret locations other than its publicized Swan Island site. Now these conclusions have been confirmed by none other than E. Howard Hunt of Watergate fame.

Of course, *Radio Swan* has faded into the past (the same can't be said for Hunt and his Bay of Pigs book, *Give Us This Day*), but many other clandestine broadcast operations are still in business. Any one of these clandestine operations can prove to be the *Radio Swan* of this decade. All you have to know is where and when to listen for sudden changes in signal strength, schedules, and format.

Radio Free Russia. Although it has never received the publicity enjoyed by the CIA's *Radio Free Europe* and *Radio Liberty*, *Radio Free Russia* could become one of the most important operations of the 1970's, now that the CIA's clandestine broadcast role has been substantially reduced. Operated by the right-wing National Alliance of Russian Solidarists (or NTS in Russian), *Radio Free Russia* began with a low-powered portable transmitter in West Germany. A decade later, it was claimed that the same transmitter was still being used, but shortly after the Cuban missile crisis, a major expansion got under way.

Starting about the latter part of 1962, *Radio Free Russia's* programs were aired over transmitters belonging to the Taiwan government—Broadcasting Corporation of China—and those belonging to *Radio Caribe* in the Dominican Republic (now merged with *Radio-TV*

as an entity completely separate from the CIA).

*Tune in on
international
intrigue*

BY C. M. STANBURY II

Dominicana). But it was an off-spring of *Radio Swan*—*Radio Libertad*—that became the most effective outlet for NTS.

According to Hunt's book, the original Bay of Pigs blueprint consisted of three parts. First, a Cuban expeditionary force would establish a beach head and "government-in-arms." Second, *Radio Swan*, transmitting from Swan Island "and elsewhere," would broadcast appeals for help on behalf of the government-in-arms. Finally, with these widely heard *Radio Swan* broadcasts as justification, there would be massive Pentagon intervention. Someone, apparently the newly elected President John F. Kennedy, cancelled all but the first part of the plan. When that failed, Hunt tells us that he and the Chief of Propaganda Operations "issued one communique. . . It denied there had been an invasion, downplaying the assault as a resupply effort to guerillas in the Escambray." What Hunt doesn't tell us is that at 2300 EST the next night (April 20, 1961), "*Radio Escambray Libre*" appeared on 7000 kHz

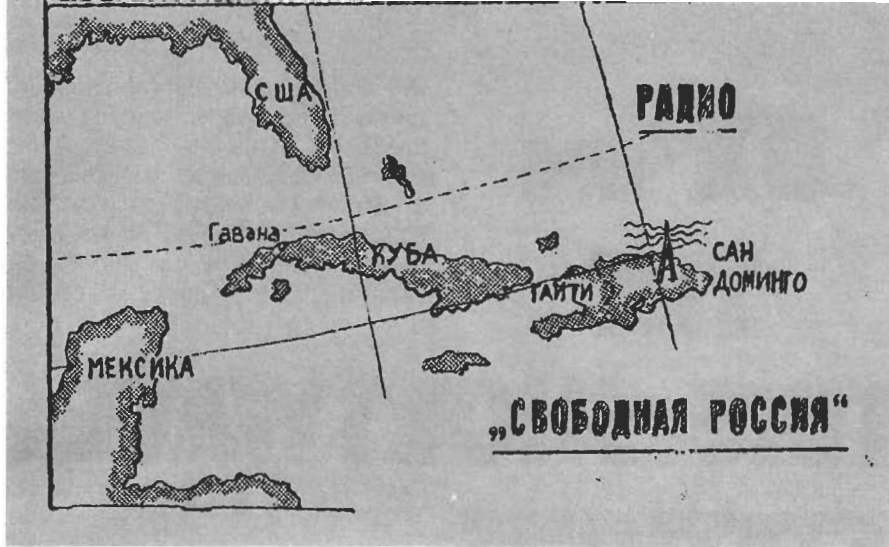
with anti-Castro slogans and fictitious orders to those same fictitious guerillas. Then, in October 1961, *Radio Libertad* commenced transmissions on that very same frequency (while at almost the same time *Radio Swan* became *Radio Americas* and the Defense Intelligence Agency was created

as an entity completely separate from the CIA).

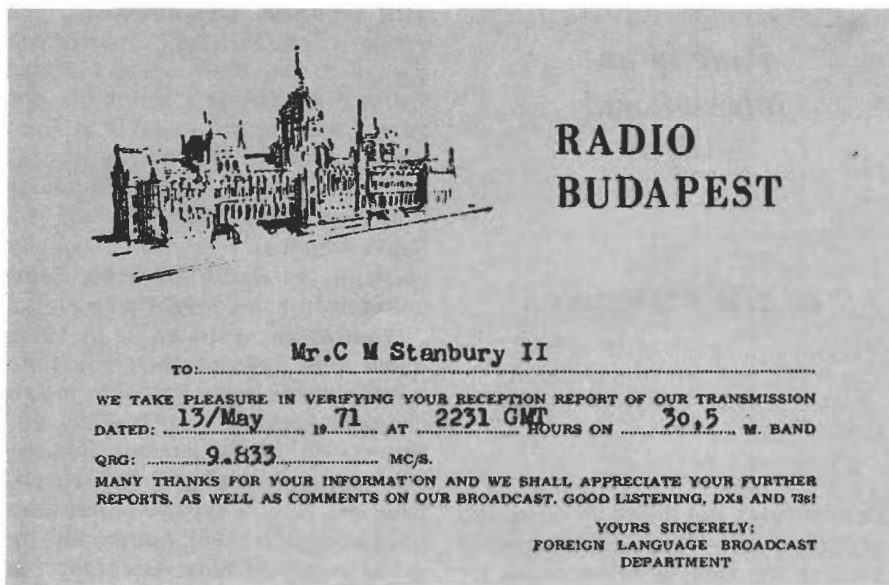
The French Connection. The easiest way to QSL *Radio Libertad* was always to log them while carrying *Radio Free Russia's* programs and send your report to NTS at their French address, 125 bis rue Blomet, Paris 15. Before *Radio Libertad* faded from the scene in 1968, the same year *Radio Americas* went silent, NTS was verifying all *Radio Libertad* transmissions from a Venezuelan address.

Meanwhile, until early in 1974, *Radio Free Russia's* Bavarian transmitter site was heard from time to time in North America prior to 1500 EST sign-off on heavily jammed frequencies varying between 11,400 kHz and 6350 kHz. Now, these two transmitters have also gone silent. Apparently, the government of West Germany has cancelled their transmitting privileges in the interest of detente with Moscow. This raises a question for the SWL that could turn out to be as historically important as the truth about *Radio Swan/Americas*: Where and in what form will NTS reappear?

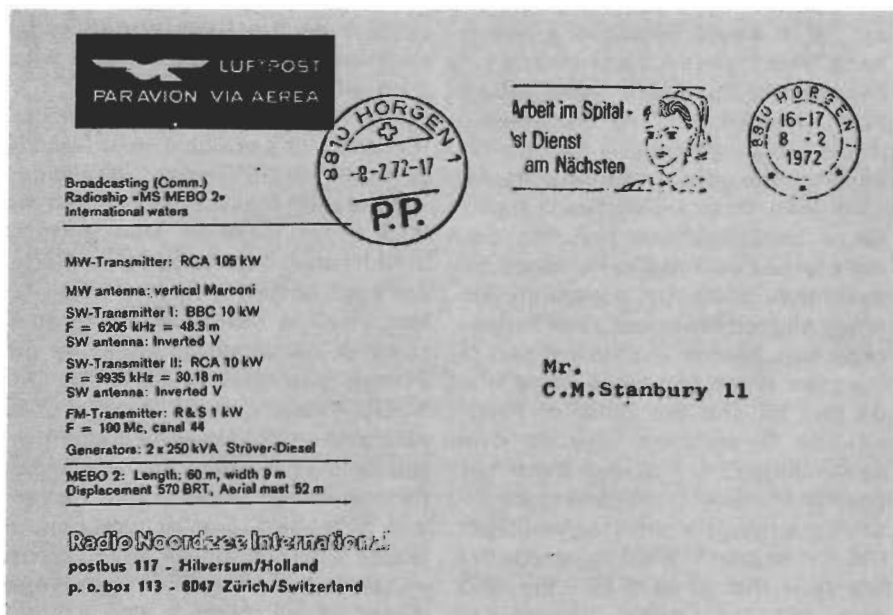
The North American SW Association provides a possible clue. They report one "*Radio Omega*," a religious organization that formerly shared the NTS West German transmitters, broadcasting over *Radio Monte Carlo*. Although nominally a commercial station RMC is controlled through a complex corporate structure by the French government. RMC has two SWBC frequencies of its own—6035 kHz and 7135 kHz—and feeds programs to an MW relay on the island of Cyprus in the Mediterranean via various SW point-to-point channels. It leases a pair of 100-kW SWBC transmitters to the evangelical *Trans World Radio*, whose schedule also includes programs in Russian.



Map from a pamphlet advertising Radio Free Russia transmissions over R. Caribe in the Dominican Republic.



A QSL card confirming reception of Radio Budapest while it was carrying R. Espana Independiente transmissions.



Radio Northsea International QSL card.

In And Around Venezuela. *Radio Caribe* in the Dominican Republic began its career as *Radio Liberacion de Venezuela*, an operation that culminated in the attempted assassination of the then Venezuelan President, Romulo Betancourt. It is also certain that one of the sites used for NTS's *Radio Libertad* was in or near Venezuela, although for a time they probably also used a non-Venezuelan location. Today, the most widely heard clandestine station in the Americas operates from a location in or near Venezuela. *Radio Euzkadi*, beaming Spanish- and Basque-language broadcasts to Spain in the late afternoons (EST), transmits on frequencies varying from 13,250 kHz to 12,070 kHz.

As in the case with NTS, *Radio Euzkadi*'s key address is in France: B.P. 59, Poste Centrale, 75790-Paris, Cadex-16. But this is where the similarity between the two broadcasters appears to end. Unlike the rightist NTS, *Radio Euzkadi* can best be described as "liberal left" but is, nevertheless, in direct competition with the Marxist *Radio Espana Independiente*.

Interchangeable ID's. With so much competition on the SW frequencies nowadays, including deliberate jamming, high power has become increasingly more essential for successful clandestine operations. Except when used as a cover like Swan Island, the days of the exotically isolated, low-power site used exclusively for a single clandestine purpose (for example, the NTS base in the Bavarian forest) are passing away. Thus, *Radio Espana Independiente* used transmitters owned by *Radio Bucharest* on, for example, 12,140 kHz until sign-off at 1810 EST. The same transmitters are also used for *Radio Portugal Livre* (12,005 kHz between 1820 and 1850 EST), although *Radio Bucharest* denies involvement in clandestine activities. Similarly, *Radio Peyk-e-Iran (Radio Courier of Iran)* uses at least one transmitter belonging to *Radio Sofia* between the hours of 0930 and 1310 EST on 11,695 kHz.

Just as *Radio Swan*, *Radio Americas*, and *Radio Libertad* were either intended to or did in fact operate from more than one transmitter site, so do the Communist clandestine stations. In the mid-1960's *Radio Espana Independiente* was noted sharing a transmitter with one of the Soviet home services and in 1971 used one of

Radio Budapest's transmitters for a short time. *Peyk-e-Iran* has an outlet on 11,415 kHz that, unlike the more readily heard 11,695-kHz channel, may emanate from a Soviet location in central Asia.

Because big-league clandestine operations have access to a multitude of high-power transmitters at a variety of locations, they can greatly expand their coverage whenever the action heats up. Such an expansion, especially when it occurs suddenly, is precisely what the SWL should be listening for. It indicates covert major-power involvement in the crisis and, therefore, history in the making.

White, Black, and Grey. There are three classifications into which the intelligence community officially divides clandestine broadcast stations. A black operation is one in which there is a major element of deception. It now appears that as soon as *Radio Swan* came on the air in May 1960, a CIA agent leaked word to the DX community that it was officially classified as "black," and this is what originally started the debate among radio clubs as to the real nature of the station.

The only thing clandestine about a white station is that its broadcasts are illegal in the country to which they are beamed. Of course, if a station transmits from the country to which it is beamed, then the transmitter site is also kept secret—for reasons of security rather than deception. Nearly all the clandestine stations in the Near East and Africa are white operations.

In other parts of the world, the majority of clandestine operations are various shades of grey. *Radio Bucharest* denies airing *Radio Portugal Livre* transmissions, but RPL does not hide its eastern Europe support. As long as *Radio Free Europe* and *Radio Liberty* hid their CIA funding, they were grey. The Bonn government's own *Voice of Germany* officially leases time from *Radio Trans Europe* in Portugal, along with *Radio Canada International* and various religious organizations, but according to informed sources, V of G actually owns RTE.

Medium-Wave Operations. The standard AM broadcast band has often played parts in clandestine operations. Hence, it shouldn't be overlooked by the serious SWL. For example, this author's observations of VOA's missile crisis station on Dry Tor-

CLANDESTINE & CLANDESTINE-RELATED STATIONS FOR THE BEGINNER

Frequency (kHz)	Station Identification	Remarks
6035	R. Monte Carlo	Listen for new or expanded Russian programs
6205	R. Northsea International	May have left air or changed ID
6240	R. Libertacao	Until 1800 EST sign-off
7135	R. Monte Carlo	Same as RMC above
9505	Radio-TV Dominicana	Includes facilities of former R. Caribe/Free Russia/Liberacion de Venezuela
9615	R. Canada International, relayed by R. Trans Europe (Sines, Portugal)	2245-2300 EST in Russian; site reported to be secretly owned by W. German government
11,415	R. Peyk-e-Iran	1310 EST sign-off; site unknown
11,695	R. Peyk-e-Iran	1310 EST sign-off; uses R. Sofia transmitter
12,005	R. Portugal Livre	1820-1850 EST; uses R. Bucharest transmitter
12,070*	R. Euzkadi	1430-1500, 1530-1600, 1630-1700 (all EST)
12,140	R. Espana Independiente	Until 1810 EST sign-off; uses R. Bucharest transmitter
13,250*	R. Euzkadi	Same as R. Euzkadi above

* Frequency varies.

Note: For EDT add one hour to times given under "Remarks."

tugas eventually established that, for security reasons, the ID's of those SWBC stations feeding it programs had been arranged to provide confusion.

During the 1960's, Cuba's *Radio Progreso* network, including its 50-kW transmitter operated on 690 kHz, aired the English-language *Radio Free Dixie* with the then-fugitive Robert Williams as principal commentator. In recent years, however, most of the clandestine MW activity has been from international waters and apparently nothing but white operations. This includes a number of transmitters off the European coast and Carl McIntyre's *Radio Free America*, which operated briefly off Cape May, New Jersey, last fall.

Any of the white operations could be hiding a black operation like *Radio Swan*. Some of these white stations already have complex international

connections. The owners of *Radio Northsea International*, for example, originally financed the station (6205 kHz) by selling electronic equipment to Biafra. As RNI explained it in an exclusive statement to this author: "Our mission took place on the request of the Swiss Red Cross and the Caritas, both welfare institutions, as their major problem existed in the communications media. . . There was no direct telephone, telegraphic, telex, or any other communication link to Biafra, only over Nigeria. Therefore, Mr. Bollier and Mr. Meister installed a wireless communication link with a transmitting and receiving station in Biafra."

With most of the stations like RNI operating in European international waters about to be forced off the air by Dutch anti-pirate legislation, one must wonder where some of these broadcasting ships are likely to wind up. ♦

Space DXing: the last frontier

by Harry L. Helms Jr.

A new "shortwave station" came on the air October 4, 1957, and opened up a new era in listening excitement for the active SWL. Throughout the world, listeners tuned their general-coverage receivers to 20,005 kHz and listened in awe. This was no ordinary shortwave station—it was the beacon transmitter of Sputnik I, the first artificial satellite, and it was transmitting the "beep—beep—beep" from high in Earth orbit. For the first time, SWLs were no longer limited to DX targets here on Earth. Listening opportunities had expanded into the universe!

In an era of multi-million dollar space communications systems, most SWLs think that tuning in signals from unmanned and manned space missions is impossible. Nothing could be further from the truth. Anyone equipped with a general coverage shortwave receiver, capable of tuning around 20 MHz, can eavesdrop on beacon and telemetry signals from manned and unmanned space missions. And if you have gear which can receive FM signals in the two meter (144-148 MHz) amateur band, you can easily intercept voice communications from orbiting spacemen!

The Russians

Most space transmissions which SWLs can easily hear are from space missions conducted by the Soviet Union. This is because most United States missions are conducted on frequencies which are extremely difficult for the average SWL to tune. Unlike the Soviet Union, the United States has established a worldwide network of permanent, landbased communications and tracking stations. At these stations the United States has erected large parabolic dish antennas and installed exotic receiving equipment. This permits the use of super-high frequencies, such as 1640 MHz, which will be the main voice channel used by the Space Shuttle.

Such extremely high frequencies require more elaborate equipment, but do have the advantage of being more reliable, less noisy, and requiring less transmitter power than conventional shortwave frequencies. Fortunately for the SWL, however, not all American space missions use such super-high frequencies.

Lacking a system of permanent land-based tracking stations, the Soviet Union has instead used tracking ships scattered throughout the world's oceans. Such

ships do not have room for the large dish antennas necessary to make effective use of the super-high frequencies favored by American space missions. In addition, Soviet space missions frequently pass over land areas out of the range of their tracking ships. Such factors have forced the USSR to make use of lower frequencies that are easier for the SWL to tune, including several channels in the conventional shortwave spectrum. Not surprisingly, many of these channels are in the vicinity of 20 MHz, near the original Sputnik I frequency.

Another place to tune for both American and Soviet space missions is the 108-136 MHz international aeronautical band. The upper end of the band is heavily used by satellites, as well as the first two MHz above 136 MHz. The 135-138 MHz range is known unofficially as the *satellite band*. Many meteorological satellites use this range for transmitting weather pictures back to Earth, using facsimile.

The Soviet Union also uses frequencies just below the two-meter amateur band (144-148 MHz) for voice communications with its manned space stations of the *Salyut* series. All transmissions here are in FM. This makes it easy to receive the transmissions on two-meter FM gear or public-service band monitoring equipment. One of the frequencies in this range, 143.625 MHz, has been in use by the Soviet manned space program ever since Yuri Gagarin made the first manned space flight back in 1961.

China also has a space program which is based heavily upon the Soviet model. Chinese satellites operate near 20 MHz much like many Soviet space missions. The most recent Chinese satellite, launched in early 1977, transmitted on 20,017 kHz.

How can one tell if a radio signal is really coming from a satellite? The best evidence is the Doppler shift. This is a change in the frequency of a received signal caused by the movement of the satellite past your listening post. The most common example of the Doppler effect is the way the pitch of a train whistle seems to change as the train approaches and then moves away from an observer.

If a suspected satellite signal does not change frequency over a period of several minutes, it is highly unlikely that the signal is actually coming from an orbiting satellite. Beware of jumping to the conclusion that you're hearing a signal

from space simply because a received signal varies in frequency. Some less expensive receivers are bothered by drifting. Actual satellite signals will be audible for only a short time, generally less than a half hour, on each orbital pass.

It's difficult to predict in advance exactly which frequencies will be used by a Soviet or Chinese space mission. The table which accompanies this article lists some frequencies which have been commonly used in the past. Particular attention should be paid to the frequencies used by Cosmos 929, a Soviet unmanned space mission which took place in July, 1977.

The Doppler effect

Cosmos 929 was apparently an unmanned test of the next generation of Soviet manned space stations and it is quite likely that the frequencies used on the mission will be used again in the future. One of the stated goals of the Soviet space program is the establishment of permanent manned space stations.

All listening on the frequencies below 30 MHz should be done with your receiver's BFO on. If your receiver has selectable sidebands, use the upper sideband, USB, position.

The beacon and telemetry signals from Cosmos 929 consisted of seemingly "stuttering" pulses in a pattern lasting several seconds and then repeated. Some space listeners have also reported Morse code signals on the frequencies used for Soviet beacons and telemetry. However, such signals are not in standard international Morse code, nor in any known variation of it.

Some SWLs have theorized that certain space-to-ground communications, particularly on the military missions, use this crazy CW to preserve secrecy. It is interesting to note that all manned Soviet space vehicles include a telegraph key at the pilot's control panel!

The first Chinese satellite launched broadcasted that nation's national anthem, "The East is Red," on its 20 MHz frequency. China II, launched in early 1977, had a signal full of beeps and clicks on its 20,017 kHz channel.

Recent Soviet manned activity has made use of the *Salyut* space station and the *Soyuz* space capsule. Cosmonauts travel into space aboard *Soyuz* and rendezvous and dock with the *Salyut*. While the cosmonauts are still aboard

Soyuz, the main channels for voice communication are 121.625 and 121.750 MHz using wideband—15 kHz deviation—FM. Once the cosmonauts are aboard Salyut voice communications are shifted over to the old reliable voice channel of 143.625 MHz.

One very interesting variation to this pattern took place in August of 1976 during the Salyut 5 mission. Listeners in Europe noted that on numerous cases when the space station entered radio range of Soviet ground stations that voice transmissions would cease on 143.625 MHz. Instead, telemetry-like signals would be heard. Alert listeners also discovered that when voice transmissions ceased on 143.625, signals

Guide to space frequencies

Frequency (MHz) Spacecraft name or use

15.008	Cosmos 929
18.008	Cosmos 929
18.060	Cosmos 929
19.946	Salyut telemetry channel
19.954	Cosmos 929
19.995	Soyuz/Salyut beacon channel
20.008	Cosmos 929
20.017	China II beacon channel
121.625	Soyuz voice channel
121.750	Soyuz voice channel
135.600	American ATS weather satellites
137.150	Soviet "Meteor" weather satellites
137.300	Soviet "Meteor" weather satellites
137.500	American NOAA weather satellites
143.625	Most commonly used Soviet voice channel
143.825	Used for coded transmissions during Salyut 5 mission

Tuning in launch support transmissions

SWLs can also eavesdrop on radio communications between rocket launching centers and aircraft aloft for photography and technical measurements in connection with launches. Transmissions from the Kennedy Space Center at Cape Canaveral are in single sideband (SSB) and identify as *Cape Radio* or *Orion Control*. Listen for them whenever a launch is scheduled. Try the following frequencies: 6723, 13,218, 14,896, 19,640, and 22,760 kHz. Listeners in the West can also listen to launch support transmissions at Vandenberg Air Force Base, California, on 22,760 kHz.

Listeners have also reported CW transmissions during Soviet manned space missions on 19,990 and 19,995 kHz. Rough direction finding indicates that these transmissions originate from the Soviet launching site at Baikonour in the Kazakhstan region of the USSR.

... But don't forget OSCAR!

Modern Electronics has kept readers informed of the very latest happenings in the OSCAR program. But have you tuned in one of the OSCAR satellites yet? OSCAR still provides the easiest way to actually hear a transmission from outer space. Both OSCAR 7 and 8 operate easily-tuned beacons. OSCAR 7's beacons operate on 29.450 and 145.972 MHz while OSCAR 8 uses 29.400 and 435.095 MHz.

The OSCAR satellites also offer your only chance to get a QSL card for hearing a satellite. AMSAT, The Radio Amateur Satellite Corporation, is the builder of the OSCAR series and they welcome reception reports on the OSCAR beacons. They also engage in fund-raising projects to pay for the OSCAR program and will gladly furnish additional information upon request. Address your reception reports and inquiries, with return postage, to AMSAT, The Radio Amateur Satellite Corporation, P.O. Box 27, Washington, D.C., 20044.

would immediately pop up on 143.825 MHz. These new signals sounded like highly irregular telemetry. Speculation ran that these new signals were actually some form of "scrambled" communication between the cosmonauts and ground stations—Salyut 5 was a military space mission. Veteran space observers in the West reached this conclusion due to the minimal coverage the flight received in the Soviet Union, the sketchy details released by Tass, and the different orbit from other Salyut missions.

Weather birds

Weather pictures from orbiting satellites have enabled earthbound meteorologists to greatly improve the accuracy of their forecasts. Little known to most SWLs is the fact that it's possible to actually receive and print out weather maps from orbiting satellites!

Weather pictures are transmitted to Earth using the process of *facsimile*. Fax, as it's known to hams, takes an incoming signal and uses it to control a stylus or pen moving across a revolving drum carrying paper. The lightness or darkness of the impression made by the stylus depends on the information contained in the incoming fax signal. With each revolution of the drum the stylus moves further down the paper, eventually reproducing an entire photo.

Facsimile transmission is permitted to hams on frequencies above 50.1 MHz. Hams who had fax equipment discovered that it was easy to receive weather pictures from orbiting satellites. They just hooked up their fax printers to receivers that covered the 135-138 MHz satellite band.

Reception of weather pictures is simplified by the fact that most weather satellites are in *geosynchronous orbits*. This means that the satellite's position in the sky does not seem to change, eliminating the need for movable antennas.

Full information on receiving weather satellite pictures can be found in *Specialized Communications Techniques for the Radio Amateur*, published by the American

Radio Relay League. Fax receiving equipment is often offered for sale in the pages of *CQ*, *The Radio Amateur's Journal*.


Even if you don't have the equipment to receive the pictures themselves, you can eavesdrop on the satellites. A fax signal sounds much like a slow-scan tv (SSTV) signal—continuously varying tones. The United States uses 135.600 MHz for its ATS series and 137.500 MHz for the NOAA series. The Soviet Union has its own "Meteor" series operational on both 137.150 and 137.300 MHz. Incidentally, the weather pictures from the Soviet satellites can be received just as easily as from the American ones!

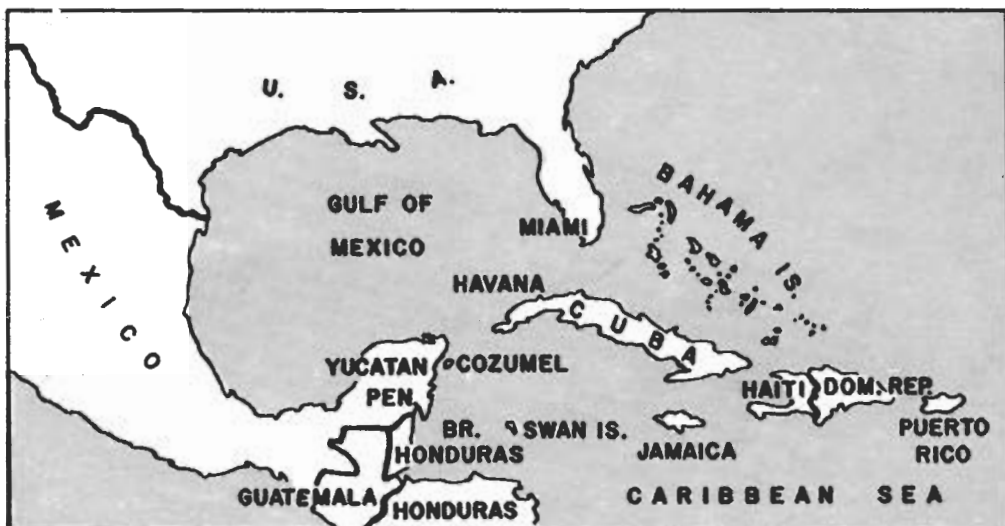
Receiving gear

To tune satellite signals below 30 MHz, almost any general coverage shortwave receiver can be used. Older models which lack sensitivity can benefit from the addition of an outboard preamp. There are a few receivers capable of tuning the 108-136 MHz aeronautical band available on the new equipment market and many more available as military surplus. Another approach is to use a converter with a general coverage receiver. Again, a good place to find such gear advertised is *CQ*, *The Radio Amateur's Journal*.

Amateur two-meter FM gear and public-service band receivers which can tune down to 144 MHz can usually receive the 143.625 MHz Soviet voice channel if a few modifications are made. The biggest change is converting the selectivity from the narrowband (5 kHz deviation) FM commonly used in such devices to the wideband (15 kHz deviation) FM used for Soviet voice transmissions.

Antennas can be relatively simple. Many find that a dipole, ground plane, or vertical gives satisfactory service. For receiving signals below 30 MHz, any antenna that gives satisfactory shortwave reception can be used.

Listening in to outer space, as you can see, is an activity within easy reach of any SWL. The sky doesn't have to be the limit for your DXing activity! 



RADIO AMERICAS AND THE CIA

How our super-spy branch operates the Swan Island propaganda mill.

By TOM KNEITEL, K2AES

THE operation of the station now known as Radio Americas and formerly called Radio Swan on Swan Island in the Caribbean south and a little west of Cuba has been the subject of an immense amount of speculation in DX radio circles virtually since the transmitter went on the air. Rumor long has had it that R. Americas is run by the U.S. Government—of late, more specifically, by the Central Intelligence Agency.

The station is operated out of offices in Miami, the winter playland of rich New Yorkers. The city, by coincidence, also is the focal point to which the largest number of refugees fled after Fidel Castro took over Cuba. At last count, Miami was temporary home to more than 120,000 Cuban nationals. Among these refugees are a sizable number of people who at some point in time were connected with the operation of R. Americas. Some of them are willing to discuss these experiences.

EI published an article on R. Swan/R. Americas last May. After that report appeared many volunteers came forward with additional details about the station. R. Amer-

icas itself has changed to some extent since that time. Short-wave transmission had been cut off and now there appears to be some evidence that medium-wave broadcasts also may be about to end, a point which we will discuss in greater length later in this article.

Miami itself has taken on something of a constant air of intrigue. Most of the Cubans there are highly sensitive politically and feelings against Castro run high. Again and again, groups or individuals busy in the hatching of plots against the Cuban dictator are arrested and their weapons, in some cases, are seized. It was in this emotionally-charged atmosphere that part of the information in this report was gathered. Some of it came from much less glamorous sources—Florida corporate tax records, for example, which are open to public scrutiny at any time.

To give our conclusion at the beginning, the station definitely is a so-called black (secret) operation of the CIA and the location is on Swan Island. Even the latter point has been in dispute several years.

When the station first showed up at 1160

MEMORANDUM

Tema : Radio America

La radioemisora que transmite por onda corta desde la isla de Swan se identifica como "Radio-America" utilizando unos equinos de 50 mil watts con una antena "rombica" dirigida hacia la isla de Cuba.

Radio America se identificaba anteriormente como "Radio-Swan", saliendo al aire por primera vez a mediados de 1960. La planta fue montada por técnicos de la Agencia Central de Inteligencia de los Estados Unidos con el propósito de hacer propaganda de "ablandamiento" de la opinión pública cubana como parte del plan de invasión a Cuba que se desarrolló a mediados de abril de 1961.

Radio-Swan utilizaba por entonces un equino transmisor portátil de menor potencia que el que se utiliza en la actualidad. Una corporación anarcia entonces como propietaria y operadora de la emisora. Según se sabe dicha corporación es la "Gibraltar Steamship Corp."

One of the author's sources for the information appearing in this report was Cuban nationals employed at some time in the operation of Radio Americas. This memo in Spanish was written by such a person. In translation, the second paragraph says the plant (transmitter) "was constructed by technicians of the Central Intelligence Agency of the United States."

RADIO AMERICAS AND THE CIA

kc on the Broadcast Band and at 6000 kc on the 49-meter SW band in 1960 as Radio Swan it was listed as belonging to the Gibraltar Steamship Corp., a CIA front—or spook, as the CIA itself calls its front organizations—and the headquarters were in New York City. After the Bay of Pigs fiasco, Gibraltar moved to the Langford Building in Miami and changed the station name to R. Americas.

Eventually Gibraltar was succeeded by Vanguard Service Corp., which referred to itself as a firm of business consultants. Vanguard then turned over the station to another CIA front, Radio Americas, Inc., of 101 Madeira Ave., Coral Gables, Fla. Vanguard still exists as a corporation (headquartered in the law offices of Miami's Kelly, Paige, Black & Black in the Dupont Building) but seems to be inactive.

The president of RA, Inc., is Roosevelt C. Houser, a director of the First National Bank of Miami, who does business as the Florida

Bond & Mortgage Co. and Houser Realty Co. Second man on the RA totem pole is Vice-President W. R. Maddux, who does business as Maddux & Co., real estate. The Secretary-Treasurer of RA is Walter S.C. Rogers, a lawyer who is president of Mr. Houser's Florida Bond & Mortgage Co.

These men seemingly play a minor role in the operation of RA. Cubans familiar with RA have little knowledge of them and define their function as being a respectable front for the station and for the channeling of CIA funds through their banking connections. Most officers of the station since its inception have had close banking or other corporate financial contacts.

The station actually is operated by two men. One, a Cuban-American named Robert J. Wilkinson, has been with the station since it first went on the air in 1960. Cuban-national sources identify him as the CIA agent in charge; his official title is listed as Program Director.

In Pre-Fidel Havana Bob Wilkinson was a well-known producer-actor for the CMQ

PERSONNEL DIRECTORY

Listed here are the companies concerned with the operation of R. Americas and predecessor R. Swan, along with the officers of these companies and, in some cases, their other business connections.

Gibraltar Steamship Corp. (1960; inactive)

Pres.: Thomas D. Cabot, Weston, Mass.

Director, 1st Natl. Bank, Boston

VP: Sumner Smith, Lincoln, Mass.

Owner of Swan Island(s)

Stockholder: Walter G. Lohr, Baltimore, Md.

Commercial Mgr.: Horton H. Heath, New York, N.Y.

Program Dir.: R. J. Wilkinson, Miami, Fla.

Operations Mgr.: Roger C. Butts, Miami, Fla.

Vanguard Service Corp. (1962-Present; inactive)

Pres. & Treas.: Leon D. Black, Miami Shores, Fla.

VP: Robert R. Bellamy, Miami, Fla.

Investment broker

Secy.: Frank J. Kelly, Coral Gables, Fla.

Radio Americas, Inc. (Present)

Pres.: Roosevelt C. Houser, Coral Gables, Fla.

Director, 1st Natl. Bank, Miami, Fla.

VP: W. R. Maddux, Miami, Fla.

Maddux & Co., real estate

Secy.-Treas.: Walter S. C. Rogers, Coral Gables, Fla.

Florida Bond & Mortgage Co.

Program Dir.: R. J. Wilkinson, Miami, Fla.

Former Vanguard Officers

Pres.: William H. West, Jr., Millwood, Va.

VP, Farmers & Merchants Natl. Bank, Winchester, Va.

VP: James E. Hollingsworth, Palm Beach, Fla.

Director, 1st Natl. Bank, Palm Beach, Fla.

VP & Genl. Mgr.: Mr. Butts, then of Hollywood, Fla.

Former employee, W. R. Maddux

Secy.: Richard S. Greenlee, New York, N.Y.

Attorney

Commercial Manager: Mr. Heath

Program Dir.: Mr. Wilkinson

Office Mgr.: Frederick Fazakerly, Miami, Fla.

George Wass, address unknown

radio network. Wilkinson lives in Miami at 11800 S.W. 83rd Ct. (his phone is unlisted).

RA Program Coordinator is Orlando Alvarez, owner of important radio stations CMCH and COBH, popularly known as R. Cadena Habana, prior to Castro's takeover of all stations.

These two men head a staff of more than 30 persons in Miami—artists, newsmen and technicians. They also control the four Cuban newscasters and one American radio operator stationed on Swan Island.

RA programs are both live and on tape. The live broadcasts consisting of newscasts that are transmitted each half-hour by the staff on Swan Island. News material is derived from AP and UPI via short-wave radio.

The taped programs are partly original, consisting of soap operas, dramatic shows, comedy—all done with a not-too-subtle anti-Castro slant. They are recorded at a small studio in Miami Beach or at the Continental Sound Recording Studios, 2020 N.W. 7th St., Miami. Continental is operated by Aldo Vazquez, who supervises all of the recording

work. Continental's second in command is Orlando Alvarez, Wilkinson's assistant at RA. In fact, RA by now may have bought out Continental. The recordings are directed by Angel Fernandez Varela, ex-director of the Havana newspaper Informacion. Many of the commentary programs are narrated by Cuban counter-revolutionary Luis Conte Aguero.

The remainder of the taped shows are recorded off the air from broadcasts of short-wave station WNYW, operated by R. New York Worldwide. This station, while it was still called WRUL, was identified as another CIA spook. The voices of Havana Rose and Luis Conte Aguero were picked up for re-broadcast by R. Swan and R. Americas from WRUL's transmitters at Scituate, Mass., now used by WNYW. When these transmitters were destroyed by fire last April (they were back on the air in eight days with rented equipment) we couldn't help wondering about the cause. But a station spokesman would say only that the cause of the fire was still under investigation.

The completed tapes are flown to Swan twice weekly in RA's own single-engine Piper Comanche, stopping for fuel in Cozumel, Mexico. The plane also flies the personnel back and forth to the island for rotation every few months.

On Swan, the transmitter (now 50 kw, replacing the original low-power portable unit) and other facilities are located in two trailers which recently were mounted on permanent cement piles. Electronic equipment used by the station is described as the best and is maintained meticulously.

The American radio operators on Swan don't have much spare time but are free to take a busman's holiday by using the RA ham station, FCC-licensed under the call-sign KS4CC. Most operators are hams and make good use of the station. Recent operators have included W4LVF, WØYKD, W6PEU and KH6BCB.

One interesting aspect of RA is that the operation costs some \$30,000 per month to keep going. Bob Wilkinson is said to be pulling down a salary of about \$14,000 per year and his assistant, Orlando Alvarez, supposedly earns \$10,000. The people stationed on Swan also make good salaries.

Cost, of course, isn't something to haggle about when you've got an effective propa-

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Radio Americas and the CIA

Continued from page 29

ganda tool going for you in a trouble area. The \$3 million that has been sunk into RA over a seven-year period would keep the Defense Department (with a 1966 budget of almost \$56 billion) going for only half an hour. But reports from Cubans now living in Miami suggest that its effectiveness is meager.

Two things should be considered when evaluating the appeal of the station. First, RA pumps out an unending stream of hardcore anti-Castro propaganda. Second, Cubans tend to be a lighthearted people with a festive approach to life, a quick sophisticated sense of humor and a love of music and dancing. The average Cuban has to put up with endless hard-sell politics from his own government, though. So he has little interest in spending his leisure listening to more of the same.

In fact, Cubans pass up listening to RA (it's illegal to listen, anyway) in preference to the soft-sell VOA station in Marathon, Fla., which operates in Spanish only a few

kc from the RA frequency. But there *are* avid RA listeners in Central and South America. There, it seems, listeners figure that if the U.S. is spending so much money to combat Castro he must be greater and more important to Latin America than it would otherwise appear!

The CIA feeling is now assumed to be that, realizing the failure of the RA concept, they must take a new approach. There appear to be several possibilities. One currently being speculated on is that RA may withdraw from Swan Island and combine forces with the mysterious station calling itself R. Libertad, La Voz Anti-Comunista de America. R. Libertad broadcasts from a carefully concealed location in or near the Bahamas or Lesser Antilles. The speculators have singled out Great Inagua and Andros in the Bahamas and a site in Venezuela as prime candidates.

Ties between the two operations are suggested by recent events, one of them concerning Roger Butts, one of the people who put the original R. Swan transmitter on the air and who stuck with the operation until recently. Although he has been listed as a salesman for the W.R. Maddux real estate outfit they say he is no longer employed there. The RA office confirms his employment until a few months ago.

Following the quiet disappearance of Butts from the Miami area the RA short-wave signal suddenly vanished from the air, and RA announced that the equipment was being repaired. Speculation is that both Butts and the missing RA transmitter have been relocated in preparation for the new operation. And R. Libertad recently has been logged on the former RA frequency.

Some of the people I spoke to feel that the entire idea of RA will be dumped altogether without any attempt to combine it with R. Libertad. They say that the station may be dismantled and the idea abandoned by the end of this year.

Why did it take seven years and \$3 million to realize the failure of RA? Why was it established as a black operation rather than one out in the open (especially after its participation in the CIA's Bay of Pigs invasion)? What is the CIA's connection with the top secret R. Libertad? These are some of the questions that remain to be answered.

One answer came through loud and clear. Radio Americas may well be the propaganda faux pas of the century. —

El Visits Radio Americas

By TOM KNEITEL, K2AES/KS4CH

A SHORT history of the radio waves covering the last several years would have to include an awful lot of downright boring incidents and little controversy, the latter perhaps being highlighted by ruckuses involving the ownership of a certain station in Austin, Tex., the hullabaloo about international broadcasters shouldering hams around in the 40-meter band . . . and the strange assortment of facts and fantasies surrounding the Caribbean broadcasting station calling itself Radio Americas.

Way back in 1961, when the station was known as Radio Swan and sent what appeared to be coded messages ("the moon is red") during the Bay of Pigs invasion, charges that it was a secret operation of the Central Intelligence Agency were made in the press. Then secondary complications arose when respected members of the DX fraternity began doubting that the station was located where it said it was—namely on Swan Island, a lonesome little pinpoint 125 mi. north of the Honduran coast and 185 mi. southwest of Grand Cayman Island. As the years went by there were more and more DXers who seemed bent on uprooting Radio Americas and moving it to such varied Caribbean islands as Navassa and Cozumel, to Venezuela or



El Visits Radio Americas



Members of expedition with chartered DC-3 on grass landing strip at Swan (left to right): EI editor Bob Beason, pilot Francisco Hernandez, copilot Ricardo Madrigal, author Tom Kneitel. Pilot made good landing despite primitive strip and crosswind.

Radio Americas broadcast-band antennas radiate a signal on 1157 kc. Tuning shack is at base of the left (eastern) tower, which gets more power than the other one, producing a directional signal pattern. This cleared area is carpeted with rich grass. Normal scrub jungle vegetation is seen in background.

even aboard a ship or aircraft. The hot speculation about the real location of the station continued long after the question of whether it was a CIA operation seemed to be settled to everybody's satisfaction—in the affirmative.

When it bothered to comment at all, the management of R. Americas maintained that it knew where its station was—and that it was on Swan. But such statements seemed only to confirm the suspicion that R. Americas *must* be somewhere else.

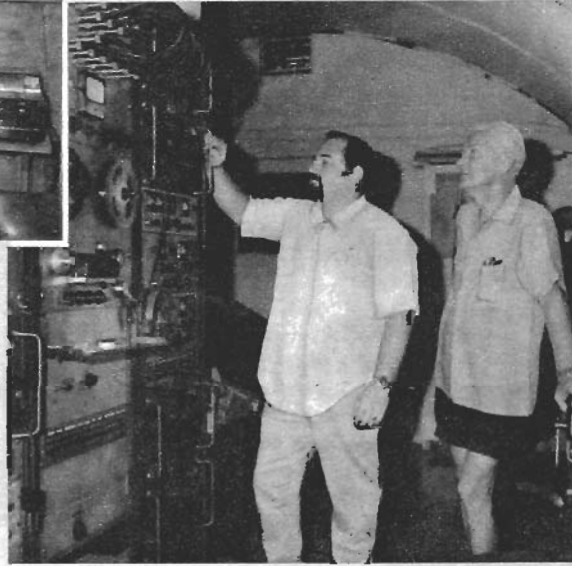
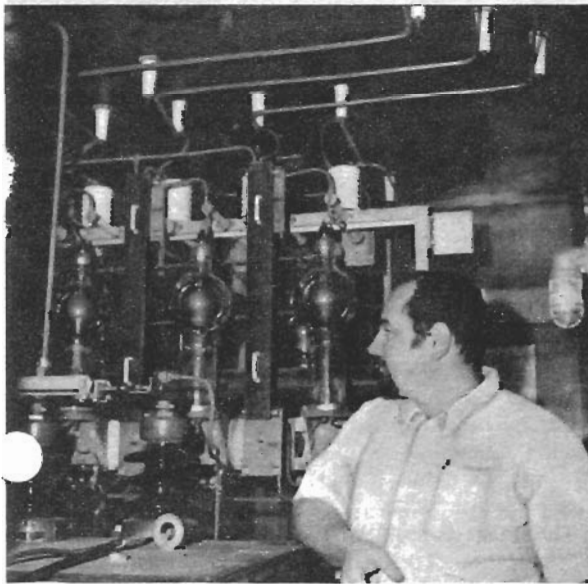
It was a hopeless puzzle that could not be solved with accuracy because almost nobody

seemed ever to have been to Swan, except for those few people who belonged there. Rumor had it that the island was off limits to anybody not actually working for or authorized by the government or one of its contractors. So far as anyone could determine, the only outsiders to see Swan in recent years were an elderly couple from New England who went there to count birds.

In view of all this, EI's editors decided that a small DXpedition to Swan Island would be sportingly difficult to pull off but just the thing to solve the controversy. Those chosen to go were EI editor Bob Beason and



The author makes like an announcer in the 1-desk, 2-position Radio Americas booth. News and some station IDs are done live but most programs are taped. RA's announcers weren't seen on visit.



Station manager Paul Collamore with the author at one end of quonset hut containing studio, news room, and receiving-taping facilities shown here. Some programs are picked up, taped, rebroadcast.

Six-tube final stage of RA broadcast transmitter (left) is of ancient design. A seventh tube is used as standby. Signal comes through immense filter in foreground, exits via lines overhead.

the writer of this article.

Swan is a mile-and-three-quarter speck of coral overrun with tropical vegetation, except for clearings, that is almost as remote as the Mountains of the Moon. Its ownership long has been disputed by the United States and Honduras, though for the last century the U.S. has counted it as a possession. The island once was the site of a thriving, though small, coconut and guano (bird droppings) exporting industry. In 1912 the United Fruit Co. established a powerful wireless relay station there, erecting four giant transmitting towers at the west end of the island. The sta-

tion was abandoned 20 years later and in the late 1930s the U.S. Government sent Weather Bureau and Civil Aeronautics Administration (now FAA) personnel to Swan to establish a weather and aeronautical radio station. In 1955 Swan was levelled by a hurricane but was rebuilt and still is the site of Weather Bureau and FAA operations.

Wildlife on Swan includes large numbers of iguanas (a fearsome looking but harmless lizard), booby birds and man-of-war (frigate) birds. Vegetation, though heavy and thick, is commonplace with the exception of some manchineel trees, which can give the

EI Visits Radio Americas

unwary a nasty sting. Waters surrounding Swan abound with fish, including amberjack, barracuda, snappers and queenfish (queenfish look like large barracudas and are known to local sportsmen as wahoos). Curiously enough, there are no swans on Swan. The name is taken from its discoverer, a Captain Swann, master of the vessel *Cygnat*, which landed there in 1680.

At present the island is home to about 40 souls, Americans, Cayman Islanders and Hondurans. The leading question for us was how many of these souls (if any) labored on behalf of Radio Americas? There was always the possibility that the station really wasn't there. Maybe it was floating or flying around, or possibly it was in South America. The station's shortwave transmitter (which was off the air for a year) had recently reappeared on 6 mc and started giving a Venezuelan mailing address. (The broadcast station, which lists itself as being on 1160 kc but actually is centered on 1157 kc, continued to use a Miami address.)

The EI DXpedition then hinged on our figuring out a way to get to Swan to peer through the palms for a first-person survey of the situation. EI had written so much about the station that the publication undoubtedly had become a headache to the staff. Nevertheless, we set out to hook ourselves an invitation to the exclusive island.

Figuring that the most obvious start would be to come right out and ask the RA office in Miami whether we could visit Swan, we fired off a letter. To our amazement, RA director Bob Wilkinson came back with the answer that we would be welcome on Swan so long as we had permission from the FAA (which, he said, controls the island). In addition, we would have to provide our own transportation since no regularly scheduled planes or ships have Swan on their itinerary. We envisioned miles of red tape to get FAA approval.

As things turned out, the FAA was the least of our problems. Gus Atkins, chief of the FAA's Airways Facilities Branch in the Miami region, gave us his approval and his position with the FAA makes him, in effect, manager of Swan, the whole of which is federally owned. He had been one of the government employees on Swan 25 years ago.



The route taken by EI's adventurers from New York. Commercial airlines run to Cayman; local airline chartered DXpedition DC-3 to Swan Island.

He even asked us to stop by his office on our way through Miami, which we did.

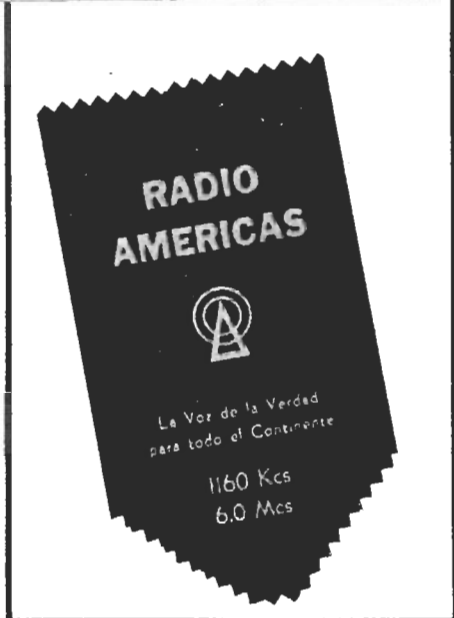
I wanted to get a ham license for Swan and so I applied for a 60-day authorization from the FCC. I waited and waited and nothing happened so I called a friend who works in the license-issuing end. He checked up and found that Swan licenses were issued so rarely that the computer was not programmed for KS4 calls and evidently lost its breakfast or something when given the request. Eventually the license (KS4CH) was issued by hand but for four years rather than 60 days. (I didn't bother asking the FCC why.)

The biggest problem was arranging for transportation. To fly by private plane from Miami or Key West was impractical since we would have to skirt around the west end of Cuba, stop for refueling at Mexico's Cozumel Island, then continue to Swan. This was long, complicated and tedious. Going by ship also was a major undertaking since it meant searching out a barnacle-covered island hopper and somehow getting the captain to wait for us while we poked around the island.

Eventually we decided to charter a DC-3 airliner from Cayman Brac Airlines. This is a Costa Rican outfit which runs an air service in the British colony of the Cayman Islands, just south of Cuba. The line had no flights on Wednesday and the DC-3 would be availa-



Transmitter building (left) is made up of trucks under roof. Power station is in the background.



Blue pennant sometimes sent by R. Americas with QSL cards. Broadcast frequency actually is 1157.

ble. The way it worked out, we had to be at Owen Roberts Field on Grand Cayman at 7 o'clock on Wednesday morning for our charter flight to Swan. In order to get to Grand Cayman on time we left New York on Monday morning to fly to Miami. Monday afternoon was spent with Gus Atkins, who briefed us on some of the colorful history of Swan Island. Monday evening we met with some ex-Radio Americas employees who wanted to bet (with two-to-one odds) that a big, clumsy DC-3 would never be able to land on the short and rocky Swan strip, which was designed for nothing larger than a twin Beech. That was not exactly encouraging news.

On Tuesday morning we departed from Miami on a British West Indian Airways jet for the 55-minute hop over Cuba to Grand Cayman. Grand Cayman is a picturesque tropical paradise, quite colonial, quite British and as yet almost undiscovered by American tourists. It's what Nassau and Bermuda were like years ago before being overrun by bands of visitors. Its coastline is dotted with ancient forts, castles, shipwrecks, secluded beaches and fishing shacks. Several luxury hotels are now being opened in expectation of future tourist trade from the States and Canada. So its days as a secluded paradise are numbered.

One thing that impressed us during our day

and night on Cayman was the effect that the words *Swan Island* had on local Caymanians (pronounced ka-MON-ians). A few of these people have done work hitches on Swan but most of them have never been to the island and know little about it, except for the rumors all of them have heard. Almost every time we mentioned our destination we were given a look of disbelieving shock and awe.

[Continued overleaf]



Swan version of Playboy Club is in federal section. It might have live iguanas but only paper bunnies.

One taxi driver simply whistled. Two people asked us point-blank whether we worked for the CIA. Our reply, in the best CIA tradition, was to say no. (Actually, we thought later, we should have said, "The CIA—what's that?" but we were new at the 007 game.)

This general air of suspicion and seeming fear gave us the creeps in short order, though at the same time it was on the funny side and reminded us of one of those ancient horror movies where people in rented peasant suits listen intently while the landlord urges the clipped-mustache English traveler not to continue his journey after sundown.

"I beg of you," says the baron of the joint, "for your own safety, go back!"

"But I must get to Count Dracula's Castle," says the mustache, not getting the idea.

All the peasants pop their eyes wide and cross themselves like mad while the landlord yells, "Zvot nanhj haryostvl, sztjarch-vuhlj!" What he's saying, of course, in Lower Transylvanian is, "Man, you outta you cotton-pickin' mind?"

Tuesday night on Grand Cayman we took bearings on RA's short-wave and broadcast signals with a receiver loaned to the expedition by Lafayette Radio. Both signals appeared to be coming from the direction of Swan.

Wednesday morning when we got to the field we were met by Frank Roulstone, Jr., a lanky American originally from Tampa who runs the U.S. Weather Bureau station on Grand Cayman. Frank had heard of our trip (by that time, it seemed, *everybody* on the island knew about it) and wanted to go with us to visit his Weather Bureau buddies on Swan. In Frank's 13 years on Cayman he never had been to the island. Inasmuch as our DC-3 had room for 32 passengers we bundled him aboard with us and took off to the southwest toward Swan.

The flight over shark-infested Caribbean waters in our 1938ish twin-engine airliner was uneventful but somewhat longer than any of us would have preferred. The FAA facility on Swan includes a non-directional, low-frequency (407 kc) homing radio beacon with so much moxie it can be picked up all over the Caribbean. Our Puerto Rican crew, made up of pilot Francisco Hernandez and copilot Ricardo Madrigal, homed in on the beacon but we flew through a cold front and the clouds first were thick and then broken and it impressed the heck out of us when suddenly this dot of an island appeared ex-

actly in front of our nose, then was lost again to sight through the clouds.

When we emerged at a much lower altitude Swan looked larger than we had thought it was going to be. Our pilot made two recon runs around Swan and Little Swan, a football-field-size, uninhabited islet lying at the eastern tip of the main island. The striking thing about the main blob of land was its antenna farm. Tall radio towers sprouted all over the place. Here and there were clusters of quonset huts, concrete buildings, some wooden houses and a few white coral roads.

We also were impressed with the shortness of the landing strip and the fact it was neither concrete nor asphalt—just plain grass. The DC-3 swung in low from the west on final approach with a stiff crosswind blowing from the left. We crossed our fingers and gulped. What happened next was one of the all-time great landings any of us had seen. Francisco crabbed the plane sharply left, then straightened out at the last instant and touched down so softly on the grass that we couldn't feel the bump. Even our welcoming committee was impressed.

We taxied around and ended up back at the western end of the strip beside the buildings making up the Radio Americas compound. A light twin plane flies to Swan twice a week from Miami, bringing in supplies for the RA operation, but the sight of an airliner landing was so unusual that virtually the entire island population of 40 turned out to greet us, making us feel for the moment like celebrities.

We were welcomed to Swan by a smiling and shirtless group of Weather Bureau and FAA people and by RA's station manager, Paul Collamore. It quickly became apparent that if Radio Americas wasn't on Swan Island Collamore certainly had sold his Miami office a nifty bill of goods.

Radio Americas was there, all right, big and brassy and making no attempt to conceal itself. The transmitting site was at the southeastern end of the island and the living/recreation compound was at the southwestern side of the island and consisted of a cluster of quonset huts.

First stop on our inspection tour was the RA receiving shack and studio. The place was clattering away with radioteletype machines printing out Spanish language news from the wire services. Banks of communications receivers lined one wall, maps of Cuba and the Caribbean covered other walls.

Since most of the programs are sent from Miami on tape there is no need for an elaborate studio. As a result, the studio consists of a tiny room with one desk and a microphone. Live announcing is done by a two-man staff. For some reason unknown to us the announcers were about the only RA staff members we didn't meet or even see wandering around. Their dormitory was the only building not included in our otherwise comprehensive tour of the station. The announcers undoubtedly are Cubans and the long-range goal of the station assuredly is to work against Fidel Castro. However, RA always has maintained a facade as a commercial station selling products in the Caribbean. It could be that the sight of Cuban announcers might seem to conflict with this image—or maybe the men just slept all day.

Leaving the receiving shack, we drove to the eastern side of the island toward the transmitter site. Our vehicle was an International Harvester Scout which, despite the fact that its odometer read only 6,000 mi., was well beat from too many trips on the rocky Swan Island roads and too many gallops through the Swan jungle. It was a four-wheel-drive job and had to nudge Swan's cow population out of the center of the road.

Since the station isn't on the air during the day, we arrived at the transmitter while maintenance work was being performed by one of the transmitter operators.

The transmitter site is dominated by two 243-ft. towers which are used for the broadcast band. The eastern tower is favored, power-wise, by a ratio of better than two to one, producing a null in the signal pattern to the west and northwest and preventing interference with WJJD of Chicago and KSL of Salt Lake City, both 50,000-watters operating on 1160 kc.

A few hundred yards to the west of the broadcast towers are a series of smaller towers and reflectors used for the Radio Americas short-wave signal.

The transmitters themselves are housed in large trailer vans from which the wheels have been removed. The vans are close to each other, share a common roof and are joined by wooden walkways. The transmitting gear consists of a vintage 50,000-watt broadcast rig and a 5,000-watt short-wave unit which also has seen better days. Both transmitters were on standby with filaments lit.

Adjacent to the transmitter vans is a new-looking building housing two huge diesel

generators which supply all of the power for RA. Two diesel engineers are in attendance to keep these babies going (they also maintain the vehicles).

In all, there are six radio operators and engineers working there for RA, plus the two diesel men. The station also employs a crew of 10 Honduran and Caymanian workers to do heavy labor and the two announcers. Two of the laborers have wives and children living with them on the island.

The laborers live in a little community of wooden buildings called Gliddentown. It looks not unlike the small communities we found on Grand Cayman and even has its own church.

Paul Collamore told us that he and the other Americans working for RA actually were employed by Philco's Tech Rep Division, an organization which rents or leases engineers to private industry. As Philco employees, they did not have access to some of the information we sought on station policy and practices.

For instance, I wanted to know why the short-wave transmitter announces the Caracas address while the broadcast station requests that mail be sent to Miami. I was told that I would have to ask the Miami office. I had the same results with a question on why there was a need for short-wave transmissions when the station ostensibly was trying to cover only the Caribbean area and was doing a whiz-bang job with its 50-gallon broadcast-band rig.

(Miami eventually told me the Caracas address was announced so they could separate broadcast reception reports from those coming in from short-wave coverage. The short-wave transmitter was used, they said, to reach Central American and South American areas, where more people have SW receivers than broadcast sets, according to their figures.)

Of the Radio Americas men on Swan and whether they are employees of Philco, I would say I have no doubt that they are, and also no desire to challenge anybody on the subject. As a matter of fact, if one found some government agency—the CIA as a for-instance—that wanted to propagandize on the air, it would make a lot of sense to contract the project out to a commercial company. It also is normal procedure for government agencies.

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- El Visits Radio Americas

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This reminds me of one hilarious (to Beason and myself) incident in connection with that supposedly secret government organization. According to a lot of people who seem to know what they are talking about, including the authors of a book on the CIA, the Rolex wristwatch is supposed to be some kind of secret identification amulet for CIA agents. Rolexes are quite expensive and seldom seen but *two* of the half-dozen RA engineers we got close to were wearing them. That's quite an average for such a small population. Furthermore, I happened to be wearing one at the time and on two occasions I turned my head sharply and found the same chap staring intently at my watch.

Life on Swan Island can be quite attractive if you are not easily bored, want to stash away some money and don't mind a monastic life. The place is as quiet and removed from the cares of the workaday world as some Himalayan palace. There's no rush-hour traffic, no crime, no police, no TV, no door-to-door salesmen, no telephone company. There also are no women (except for the wives of two laborers). All Swan offers is plenty of good beaches, surf and deep-sea fishing, skin diving, short work hours with minimum pressure and recreation facilities which include a bar for the RA crew (called the Iggy Club for the iguanas on the island), a pool table, card tables, regular movies, plenty of sunbathing and even a player piano (currently out of service).

A little PX-like company store peddles everything from Baby Ruth candy bars to name-brand liquors at fantastically low prices (would you believe Johnny Walker Red Label for \$2.20).

And the Iggy Club is not all. Swan probably sets some kind of world record, saloon-wise, because there is yet another bar on the island, making one joint for every 20 residents. The second bar is called the Swan Island Playboy Club and is located on the federal compound, which is another clearing with a fence around it that lies a bit more than a quarter of a mile from the RA digs. The Playboy is done up in the true island manner, the walls and roof being palm thatch as put together by Caymanian laborers. The latest records blast forth from the club's phonograph and slightly mildewed Playmate

pictures adorn the walls. Both bars are open 24 hours a day and are run on the honor system. You help yourself and drop a quarter in a can.

Which brings us to the most popular sport of all on Swan Island. Drinking, it is called. When work is done there is not a whole lot else to do for a bunch of men who tend to be gregarious, happy-go-lucky types. It is not that the island is populated by a bunch of drunks. Far from it. All no doubt drink in moderation, but with enough consistency that a rattlesnake would die of frustration on the island.

There is another possible pursuit. That would be going stark, raving mad. As the army found out on Pacific islands in World War II, it takes an unusual man to adapt to a life of the same boring weather and the same boring scenery and the same boring faces day after day.

The weather is typically tropic. Our day on Swan (Feb. 7) was in the middle of a cool snap and the temperature got up only to 80°. Usually it hits 85° to 87°. During the course of a whole year the lows almost never drop below 70° and the hottest summer day seldom shows 90°, partly because of constant southwesterly winds which, besides cooling the island, help keep mosquitoes away.

One last recreation is offered by the presence of a complete Collins ham station in an old panel truck parked on the RA compound. Hams from both compounds operate the station any time they desire—and have never been known to fail to get answers on a CQ call. KS4 cards are so rare that one call usually creates a six-deep pile-up.

We had heard that RA personnel and the people from the government compound did not mix but found quite the opposite to be true. Although each outfit has separate buildings the island population seemed to be a large and happy family. In fact, it sometimes is hard to tell which people work where.

Of the two compounds, the federal one is the better looking, having freshly painted white concrete block buildings arranged neatly around a well-manicured hunk of lawn, and it also is thinly populated in comparison with Radio Americas. The FAA staff consists of exactly one man, a nice chap by the name of Carr. The Weather Bureau staff consists of four people, and then there are a couple of laborers around.

The federal people normally do Swan tours

of two to six months and then are sent to some other station. But Radio Americas people have no definite rotation and some have been on Swan as much as two years. Surprisingly, requests for second tours are not at all unusual.

Radio Americas does not have its own direct radio communications to headquarters in Miami. If an emergency arises they use the FAA's teletype facility. Indeed, while we were in the area the FAA's two-way voice equipment was used to contact the motor vessel Daydream, which calls at the island every couple of weeks with RA supplies that cannot be flown in.

These favors are reciprocated by RA's permitting licensed Weather Bureau and FAA people to use their ham station.

Curiously, while Radio Americas has no FCC license to operate its 50,000-watt broadcast transmitter and 5,000-watt short-wave rig from this little patch of U.S. territory, the ham station is licensed and so are all of its operators. We were told that an FCC broadcast operator's license is not a requirement for getting a technician's job at RA.

After returning northward we contacted the FCC and asked how this monster-size station could operate on American land without a license. Three days later the lad in Washington said there was nothing in the files on the subject, which did not surprise us. Once upon a time that question, asked on the phone, was answered by a man who said, "Government stations don't have to be licensed—no, forget I said that!"

As the day drew on we got to take a motor tour around the perimeter of Swan Island, with most of the trip requiring the vehicle to be driven with the four-wheel drive in low range to plow through the dense foliage. There were parts of the island which were so overgrown that all attempts to cut a road through had failed.

Among the exotic sights along the way were the remains of the United Fruit radio towers, now lying twisted and broken in skeleton-like sections along the beaches.

At the northeast corner of Swan lies Short Cove, a narrow inlet from the sea where a white foamy surf continuously rages. This is the nesting area for the island's booby bird population and is a dandy spot for picking up the ingredients for a big egg breakfast (the man-of-war birds nest only on Little Swan, boobies only on the larger island.)

When it came time to leave late in the

afternoon, one of the Honduran workers from RA asked if he could return to Cayman with us to get some emergency dental work done. He wanted to bring his wife, his brother and two small children along. If he went by boat it would mean a 48-hour sea trip to Cayman after it left Swan. When we agreed to take him we were surprised to learn that many of the people on Swan seemed to have something or other for us to take back.

The result was that before we could take off we stood by and watched our plane loaded with an endless stream of boxes, bags, and crates. Someone even sent along a big batch of frozen wahoo fish, which gave more than a little consternation to the customs inspector on Grand Cayman, who looked with some suspicion on our whole trip to begin with. Leaving with three people in a chartered airliner to mysterious Swan Island was bad enough, but to return that same day with extra passengers, two babies and crates of dubious content, topped off with a bunch of frozen fish, no doubt confirmed his suspicions about what was going on at Swan.

Our suspicions, at any rate, were confirmed. That's where it's happening. If the station we saw on Swan Island *isn't* Radio Americas then someone went to a heck of a lot of trouble just to put us on.

Although no new evidence was obtained (or sought) as to CIA ties, neither did we have reason to alter previous concepts of the station's ownership, motives or financing. Many questions remain unanswered but the biggest one, the one which has caused the most controversy, can be put to rest.

EI was honored at being the first and only publication permitted on Swan and we are grateful to those Radio Americas, Weather Bureau and FAA people who made the visit possible, informative—and enjoyable.

For the benefit of DXers, Radio Americas reception reports should be addressed to 6123 SW 68th St., South Miami, Fla. 33143 (for Swan). The notation after the zip number assures a fast relay to the island from headquarters. RA is an excellent verifier, by the way. The FAA beacon on 407 kc can be picked up in a good part of the States. The ID is *SWA* in Morse, sometimes sent with a short space between the W and A. As is usual with federal stations, this one will verify if you make out the card for them to sign. The address is Box 2014, AMF Branch, Miami, Fla. 33159 (for Swan).



"THIS IS RADIO PEKING"

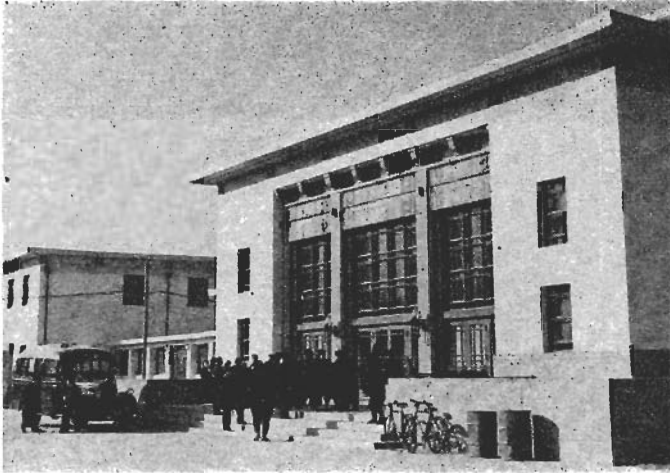
IGNORING INTERNATIONAL RADIO TREATIES IS A FAVORITE TACTIC

BY JOHN KIMBERLEY

A STERN, sometimes harsh female voice comes on the air. "We begin our program," she says, in tones of martial authority, "with a quotation from Chairman Mao. Our great leader, Chairman Mao has said: 'We should support whatever the enemy opposes and oppose whatever the enemy supports.'" With that or some other extract from the voluminous writings of Chinese Communist Party Chairman Mao Tse-tung, *Radio Peking* begins each international transmission.

At virtually any hour of the day or night, *Radio Peking* is beaming Communist China's propaganda message and Mao Tse-tung's "thoughts" to some part of the world. Today, Red China's short-wave broadcasting activity is among the most extensive in the world and is in the same league with the established broadcasting giants: *BBC*, *Radio Moscow*, and the *Voice of America*.

At the close of 1968, *Radio Peking* was broadcasting 1400 hours a week, not



This is the new broadcasting building of radio in Peking. (This photo and those on facing page courtesy Eastfoto.)

including simultaneous multi-frequency transmissions. Its international programs were aired in 31 foreign languages, ranging from Tagalog (the native tongue of the Philippines) to Swahili and Hausa, and in five Chinese dialects (Mandarin, Cantonese, Amoy, Chaochow and Hakka). At peak hours more than 40 different transmitters with power outputs of up to 240,000 watts are in use. These transmitters are only slightly smaller in size than those of the *VOA* and *BBC*.

Rapid Development. Practically all of *Radio Peking's* broadcasting development has taken place in the last 20 years. When the Communists took control of China in 1949, they were able to broadcast only 56 hours a week in their International Service. By 1959, after the Soviet Union and East Germany had helped the Chinese set up manufacturing plants to produce radio equipment, this figure had increased nearly tenfold—to 512 hours per week. In the next decade, from 1959 to 1969, the figure increased again by more than tenfold.

The Chinese Communists first began broadcasting to the outside world on Sept. 5, 1944, with the establishment in their headquarters at Yen-an, Shensi Province, of the *Hsin Hua Kuang Po Tien T'ai* (New China Radio Broadcasting Station). This was, however, a rather small effort since the station operated with only a 300-watt transmitter. It was not until 1953 that *Radio Peking's* broad-

casting hours began to rise at a markedly accelerated rate.

By 1957, Peking had started laying out several 120,000-watt short-wave and a 150,000-watt medium-wave transmitters. The short-wave equipment could be tuned to one of 6 International Broadcasting bands. Audio-frequency response was 50 to 8000 Hz, plus or minus 1.5 dB. Distortion in the audio range of 100 to 5000 Hz was less than 5%.

Since that time, the Chinese have managed to produce and put into operation transmitters with power outputs up to 240,000 watts. The factories believed to be turning out this equipment include the *Peking Radio Factory*, the *Peking Broadcasting Equipment Factory* (both in the Chinese capital), the *Nanking Radio Factory* (in the East China Province of Kiangsu), and the *Harbin Radio Factory* (in Heilungkiang Province in Manchuria).

Broadcasting Patterns. It is generally believed that Albania—China's only true and unwavering supporter in the Communist camp—now uses Chinese-made broadcasting equipment. On the other side of the coin, Albania offers a service of considerable value to Peking's short-wave interests. Some of Radio Peking's broadcasts to Europe, Africa, and both the East and West Coasts of North America are relayed from Chiak, near Durazzo, which is west of Tirana, the capital of Albania.

Following last year's Soviet invasion



Voices of announcers Chi Yeh (left) and Hsu Li are familiar to thousands of listeners who tune in China's "Radio Peking."

of Czechoslovakia, *Radio Peking* started special transmissions in Czech (3 hours weekly), Polish (2 hours weekly) and Rumanian (2 hours weekly). These broadcasts are believed to be relayed by stations in Albania which use equipment built in China.

Radio Peking seems to let political opportunism govern many of its decisions on where to direct its short-wave broadcasts. During the student demonstrations in France last May and June, *Radio Peking* increased its broadcasts in French to Europe from 14 to 56 hours a week and in English to Europe from 10 to 35 hours a week. (These additional hours were discontinued when the demonstrations ceased.)

At the end of 1968 *Radio Peking* was broadcasting 412 hours a week to Northeast Asia (including 300 hours weekly to Taiwan), 319 hours to South and South-

east Asia, 417 to Europe, 105 to Africa (below the Sahara), 70 to South and Central America and 35 to the Near and Middle East and North Africa. About 60 hours a week are transmitted to North America.

The single country receiving the most attention from *Radio Peking*, however, is the Soviet Union. Since the inauguration of Russian-language broadcasts in February 1962, and with the further deterioration of Sino-Soviet relations, Moscow and Peking have steadily expanded the number of programs directed at each other. Peking's Russian-language programs increased to a staggering 302 hours a week in 1968, compared with 98 hours in 1966. There also has been a substantial increase in the number of frequencies used in the radio version of the Sino-Soviet polemics.

(Continued on page 116)

These are the modern transmitters used by "Radio Peking." They are made in China.



RADIO PEKING

(Continued from page 61)

New Frequencies. As Peking steps up its overall broadcasting activities, it is branching out into new frequencies. During the final months of 1968, for example, Peking announced the introduction of new frequencies for five of its English-language services alone. It now transmits on frequencies from 2800 kHz to 17,898 kHz. It lists as many as 320 different frequencies—of which many are outside the recognized broadcasting bands. A check of *Radio Peking's* use of frequencies shows that it favors transmissions in the 6210-7100, 7310-9500, and 9775-11,700 kHz ranges.

One of the most fascinating, yet difficult to answer, questions regarding *Radio Peking* concerns the locations of its many powerful transmitters. There is little doubt that American and other intelligence agencies have the answer to this question but any attempts to get information out of them are invariably in vain. However, during China's turbulent Cultural Revolution, authorities did determine and let it be known that an allegedly clandestine radio calling itself the *Voice of the Liberation Army* and urging soldiers in Red China to turn against Mao Tse-tung was in fact originating outside China.

It is evident that Peking's transmitters are located throughout the vast geographical expanse of China. At least two of the principal *Radio Peking* transmitters are operating from Canton. Others are located as far west as Urumchi in the remote province of Sinkiang (used principally for broadcasts in Russian) and in Harbin, Manchuria.

According to a number of specialists involved in charting the development of Red China's radio broadcasting activities, it would not be surprising if *Radio Peking* were to become, in the near future, the largest short-wave broadcasting service in the world. It can be safely assumed that Chinese technicians are currently at work on transmitters even larger than the 240,000-watt giants now in use. It is considered only a matter of time before *Radio Peking* fills even more of the world's airways.