

THE ESPIONAGE OCTOPUS

The CIA and our armed forces have spy satellites, foreign agents, far-flung listening posts and the latest in electronic gadgetry. What they haven't got is a way to put it all together

BOOK BONUS/BY PATRICK J. MCGARVEY

THE COLLECTION EFFORTS of United States intelligence are directed against three targets—technical details, human thinking, and authoritative documents. The field today is presently dominated by technology.

The spy-in-the-sky satellites are the best-known technical devices employed, but they represent only a mere fraction of esoteric, "black box" intelligence devices in use today. Overall, their "take" is small when compared to the less notorious technical collection systems. This is not meant to belittle the system, however; in one 90-minute circling of the globe the satellites—dubbed SAMOS (Satellite Antimissile Observation System)—collect more information than an army of 50,000 foot spies collects in a year.

The 22-foot high, five-foot round satellite, looking much like a Cuban cigar, is packed with devices that pick up the murmurings of radars, the crackling of radios, the point-to-point secure communications of the world's nations, and the work of Chinese and Soviet scientists at their separate nuclear-weapons and space-research stations. Equipped with a variety of cameras these unusual spies can detect a chalk line on the ground from a hundred miles up.

Launched from Vandenberg Air Force Base in southern California on the average of once a month, SAMOS satellites can be triggered to unload their electronic take in a split-second spurt of energy that can be intercepted at ground stations, replayed, and amount to several hours of electronic intelligence. Their photo-intelligence take is ejected after about a week in orbit and intercepted in midair over the Pacific, where the Air Force enjoys a 70 percent success rate in catching them.

At present, there are two breeds of the SAMOS satellite in use. The first, using a Thor-Agena rocket, makes broad sweeps of the Soviet Union, China, and other target countries from an altitude of more than 100 miles. The second, launched aboard a Titan III-B booster, carries higher-resolution cameras and is normally employed as a follow-up to the first, flying at lower altitudes. In 1970 a total of nine United States reconnaissance satellites were launched. Six of these were the Titan III-B variety and were launched between June and late October, when there was intense United States interest in what was happening along the Suez Canal and at Russian ICBM bases, where a slowdown in construction was spotted and

eventually announced by the Pentagon.

United States spy satellite activity has declined in the past several years. In 1968, 16 satellites were launched; in 1969, 12; and only nine were lofted in 1970. Using average times in orbit, the United States had one spy satellite over the Soviet Union on 180 days of 1970.

The Soviet Union launches three times as many spy satellites as the United States. During 1970, 29 recon satellites—each remaining in orbit for an average of eight to 13 days—photographed United States installations on an average of 290 days. Most Americans don't think about being spied upon. The farmers in North Dakota would be surprised to know that the Russians are watching their crops grow with as much interest as they are. The stockyards of Omaha are scrutinized to see how the American beef industry is doing. Many a present-day Tom Sawyer has been photographed on the Mississippi as the Soviet Union keeps tabs on the river's commerce. Lastly, those cocky New York honeys who sunbathe nude on penthouse roofs are no doubt the subject of very close examination by Soviet photo-intelligence experts.

When the Son Tay prisoner-of-war camp raid into North Vietnam flopped, it was revealed that the United States Air Force had practiced for the raid at Eglin Air Force Base in Florida. They went to such elaborate precautions that they dismantled the mockup of the prison camp every morning so the Soviets wouldn't see it in their reconnaissance.

An equally lucrative and more widespread source of technical intelligence is signals intelligence, or communications intelligence, known as COMINT. In essence, this means all forms of intelligence that can be gleaned by listening in to the radio communications of a foreign nation. All forms of a target country's radio communications—be it merchant shipping, industrial development, foreign trade, or internal transportation—are monitored in varying degrees, depending on the country's potential threat to the United States. Obviously, the Soviet Union and Communist China are high priority targets for all forms of communication.

Controlled by the National Security Agency, America's radio intercept network is extensive. There are slightly over 50 stations active in any given time of the day. They are located in at least 14 foreign countries. They range in size from small mobile field units of a company of men, as used in Vietnam, to a sprawling complex of men and machines num-

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