

B. Frequency management.—Involves the equitable distribution of the radio spectrum among the various radio services under the Commission's jurisdiction to obtain optimum use of available resources with minimum interference. This involves also the maintenance of accurate frequency assignment files to determine the impact of new assignments upon existing users and for use in the resolution of interference cases.

C. Communications technology.—Covers testing and investigation of all phases of communications and equipment as well as specialized studies. The experimental radio service provides licenses for basic research in radio and electronics and the development of improved radio transmitters and new radio communication systems not provided for on a regular basis in other parts of the Commission's rules. The Commission's type approval program, determining that equipment operates within prescribed limits, is handled by the FCC laboratory. Our type acceptance program, based on manufacturers' test data, determines whether other types of equipment meet FCC standards.

This program is conducted pursuant to the Communications Act of 1934, as amended; the Communications Satellite Act of 1962 and treaties and executive agreements to which the United States is a party.

2. Who is the person primarily in charge of this program at the operative level?

Mr. William H. Watkins, chief engineer.

3. How much money and capital equipment is available under this program for fiscal 1968?

Capital equipment: \$31,000 annual.

Research division: \$3,000 desk computer.

Laboratory division: Unknown precisely, possibly only \$100,000 value at present.

	<i>Amount</i>
Annual funds:	
Total personnel compensation-----	\$1, 193, 515
Total personnel benefits-----	87, 690
Total other obligations-----	718, 578
Total -----	1, 999, 783

4. Would you describe the output generated by this program?

The output of this program is a conglomerate of improved technical standards generally reflected in our rules; new frequency assignments to stations achieved through coordination with other agencies or countries; the resolution of interference cases; changes in frequency allocations to accommodate new or expanding radio services; international registration of certain U.S. frequency assignments; encouragement of research and experimentation; improved equipment in the hands of the public through type approval and type acceptance programs; competent technical reaction to technical proposals, computation of difficult technical problems, technical advice as appropriate; and preparation of radio propagation material in convenient format.

5. Can you quantify this output in any way?

Only limited portions of the total program can be quantified. Among these would be (during fiscal year 1968):

- (a) Experimental licenses granted: 874.
- (b) International interference cases: Opened, 931; resolved, 609.
- (c) Frequency coordination actions with Canada: 4,471.
- (d) Type acceptance grants: 547.
- (e) Type approval grants: 118.
- (f) International monitoring observations to Geneva: 52,000.
- (g) International registrations of assignments: 10,113.
- (h) Licenses handled for entry in assignment lists: 103,335.
- (i) Interagency frequency coordination actions: 35,500.
- (j) Technical reports issued for public distribution: four.
- (k) International infraction reports: 12,000 (estimated).

6. Would you describe the principal operations that are involved in producing this output?

(a) Evaluation of proposed developmental or research program, engineering determinations as to potential interference, specification of technical parameter for licenses, and specification of required information to be furnished by licensees in their progress reports to FCC on their experimental work.

(b) International interference cases: Complaints from licensees undergo technical examination to determine cause of interference and relative international legal rights of stations involved. Monitoring assistance is obtained,