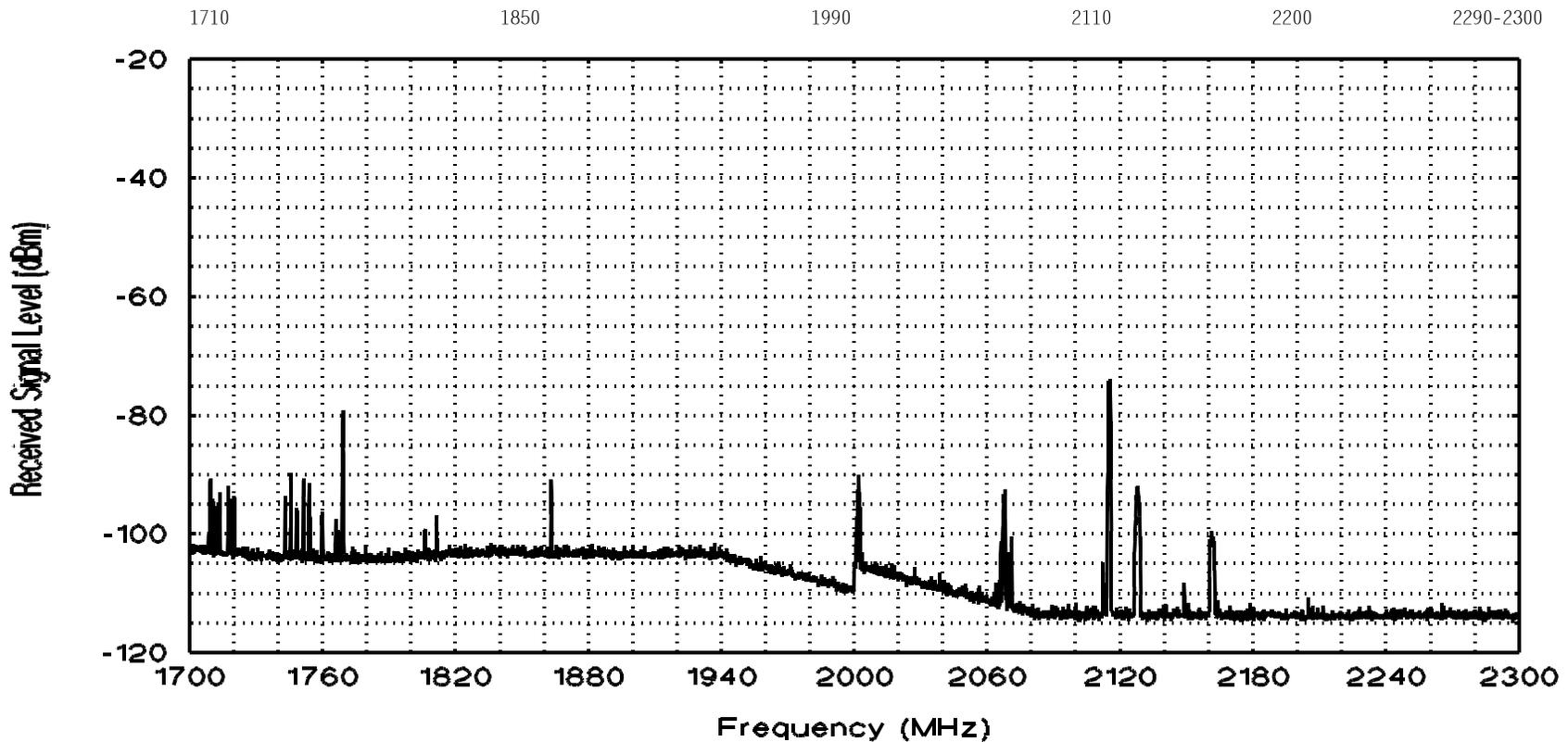


GOVERNMENT ALLOCATIONS:	FIXED, MOBILE.				FIXED, MOBILE, SPACE RESEARCH.	5
NON-GOVERNMENT ALLOCATIONS:		FIXED.	FIXED, MOBILE.	FIXED.		6
GENERAL UTILIZATION:	LOS fixed links, 1. telemetry, telecommand.	Private fixed microwave.	Auxiliary broadcasting, Cable TV, TDRSS, 2.	Control links, Cellular, 3.	TDRSS, SGLS, 4.	7



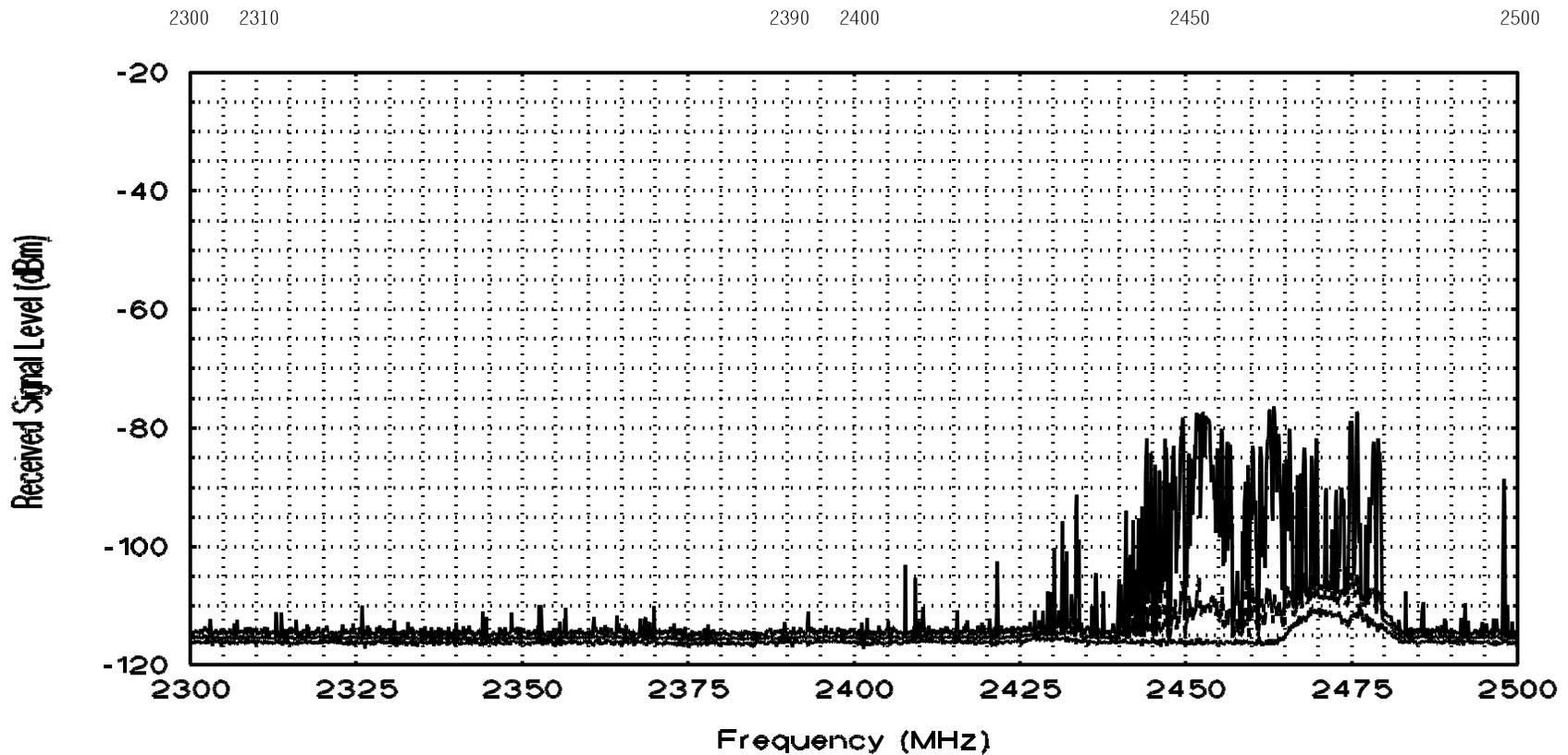
B-29

- | | |
|---|---|
| 1. Predominantly federal medium-capacity LOS fixed service band. | 4. Space telemetry, telecommand and control systems. Fixed microwave. |
| 2. GOES uplink. NASA's global ground network and TDRSS (2025-2110 MHz). | 5. FIXED, MOBILE (except aeronautical mobile), SPACE RESEARCH (space-to-Earth and Deep Space only). |
| 3. Paired fixed links (2110-2130 MHz and 2160-2180 MHz; 2130-2150 MHz and 2180-2200 MHz). Point-to-point and multipoint links (2150-2160 MHz). NASA space and Earth to space command links (2110-2120 MHz). | 6. SPACE RESEARCH (space-to-Earth and Deep Space only). |
| | 7. NASA deep space network space-to-Earth telemetry. |

Figure B-21. NTIA spectrum survey azimuth-scan graph of the 1710-2300 MHz range (System-2, band event 10, swept algorithm, maximum-hold detector, 100-kHz bandwidth) at Eureka, CA, 1995.

GOVERNMENT ALLOCATIONS:	1.	RADIOLOCATION, MOBILE, Fixed.	RADIOLOCATION, 5.		
NON-GOVERNMENT ALLOCATIONS:	2.	MOBILE.	Amateur, 5.		FIXED, MOBILE, Radiolocation, 5, 7.
GENERAL UTILIZATION:	3.	Telemetry, telemetry communications, aeronautical telemetry, 4.	6.	ISM, 6.	ISM, 8.

B-30



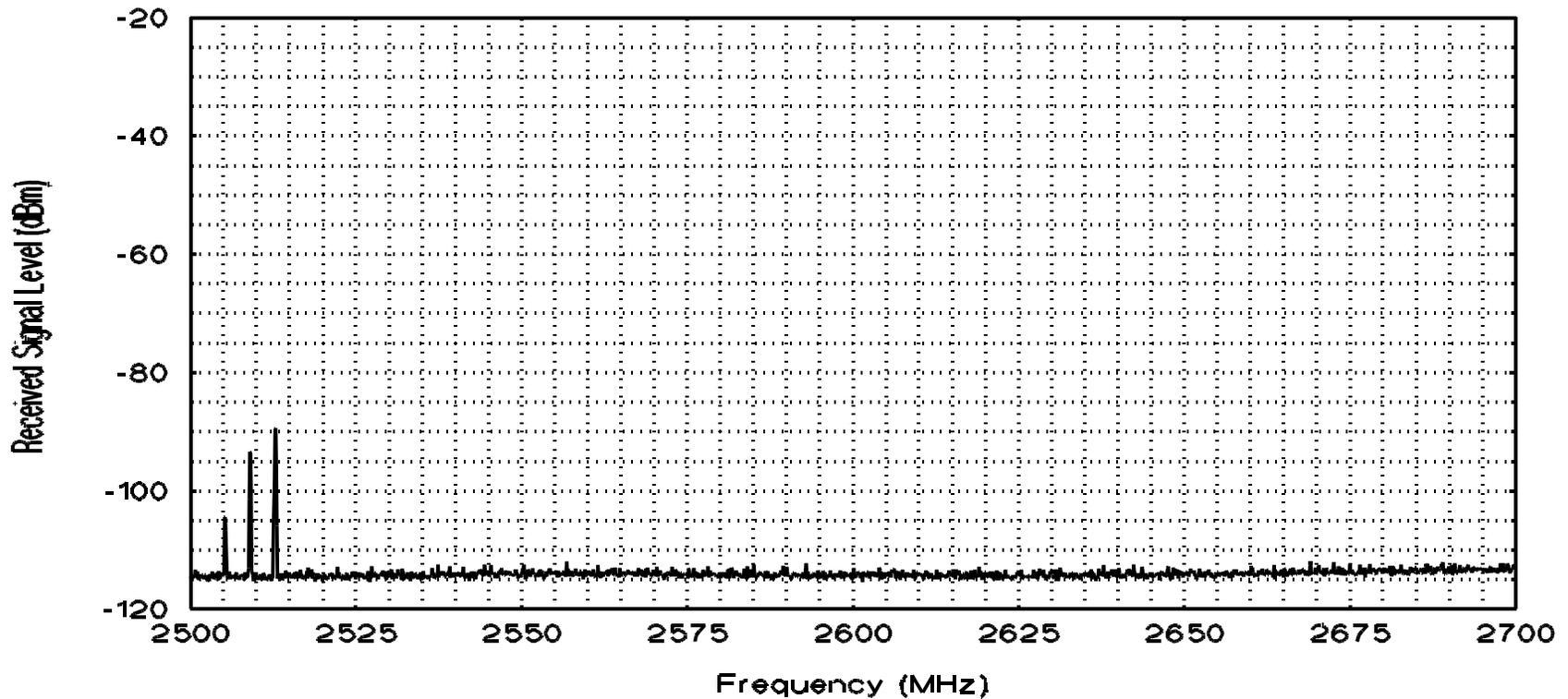
- | | |
|--|--|
| <ol style="list-style-type: none"> 1. RADIOLOCATION, Fixed, Mobile. 2. Amateur. 3. Amateur weak signal modes and other modes. 4. AF High-power long-range surveillance radar and air traffic control radar. Venus Radar Mapper (VRM) synthetic aperture radar. | <ol style="list-style-type: none"> 5. 2400-2500 MHz: Is designated for industrial, scientific, and medical (ISM) applications including microwave ovens. 6. Amateur mixed modes. Amateur satellite (space-to-Earth). 7. 2483.5-2500 MHz: RADIODETERMINATION-SATELLITE (space-to-Earth). 8. Fixed and portable video transmission by TV broadcasters. |
|--|--|

Figure B-22. NTIA spectrum survey graph summarizing 4,800 sweeps across the 2300-2500 MHz range (System-2, band event 11, swept algorithm, maximum-hold detector, 100-kHz bandwidth) at Eureka, CA, 1995.

GOVERNMENT ALLOCATIONS:		3.	4.
NON-GOVERNMENT ALLOCATIONS:	BROADCASTING-SATELLITE, FIXED, 1.	BROADCASTING-SAT., FIXED, 1, 3.	4.
GENERAL UTILIZATION:	Auxiliary broadcasting, pay television distribution, private video teleconferences, educational television (ITSE), 2.	Private fixed microwave, 2.	

2500 2655 2690 2700

B-31

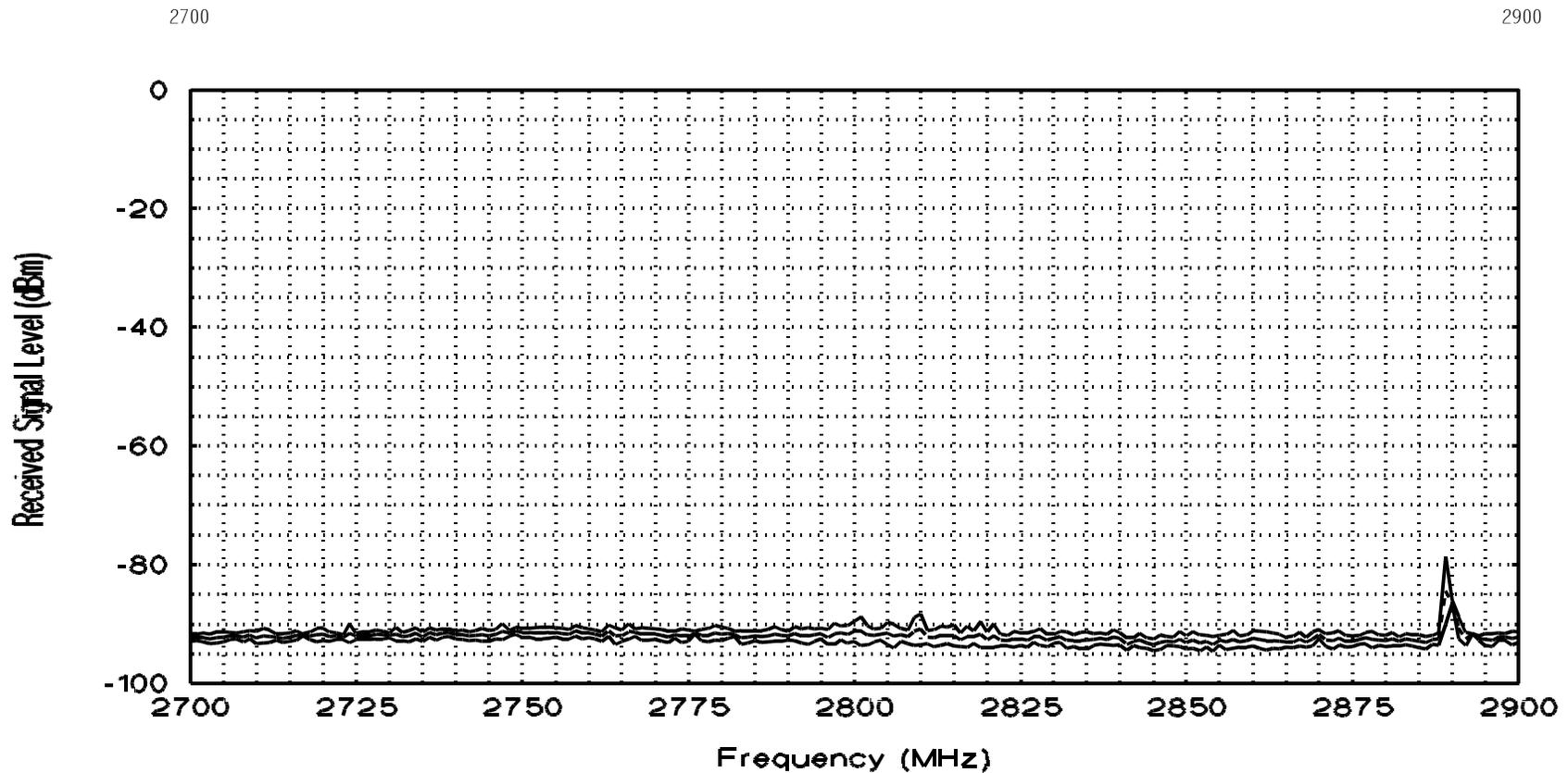


1. Broadcasting-satellite service is limited to community reception of educational and public service television programming.
2. 2500-2686 MHz: Omni transmission of Multipoint MDS that can be contained within 6 MHz channel bandwidths.
3. Earth Exploration-Satellite (Passive), Radio Astronomy, Space Research (Passive).
4. EARTH EXPLORATION-SATELLITE (Passive), RADIO ASTRONOMY, SPACE RESEARCH (Passive).

Figure B-23. NTIA spectrum survey azimuth-scan graph of the 2500-2700 MHz range (System-2, band event 12, swept algorithm, maximum-hold detector, 100-kHz bandwidth) at Eureka, CA, 1995.

GOVERNMENT ALLOCATIONS:	AERONAUTICAL RADIONAVIGATION, METEOROLOGICAL AIDS, Radiolocation, 1, 2.	
NON-GOVERNMENT ALLOCATIONS:		
GENERAL UTILIZATION:	Airport Surveillance Radars (ASRs), military Ground Control Approach radars (GCAs), NWS weather radars (NEXRAD, etc.), Long-range surveillance radars and air traffic control radars.	

B-32



1. The aeronautical radionavigation service is restricted to ground-based radars and associated airborne transponders that transmit only in this band when actuated by these radars.

2. The secondary radiolocation service is limited to the military and must be fully coordinated with the primary services.

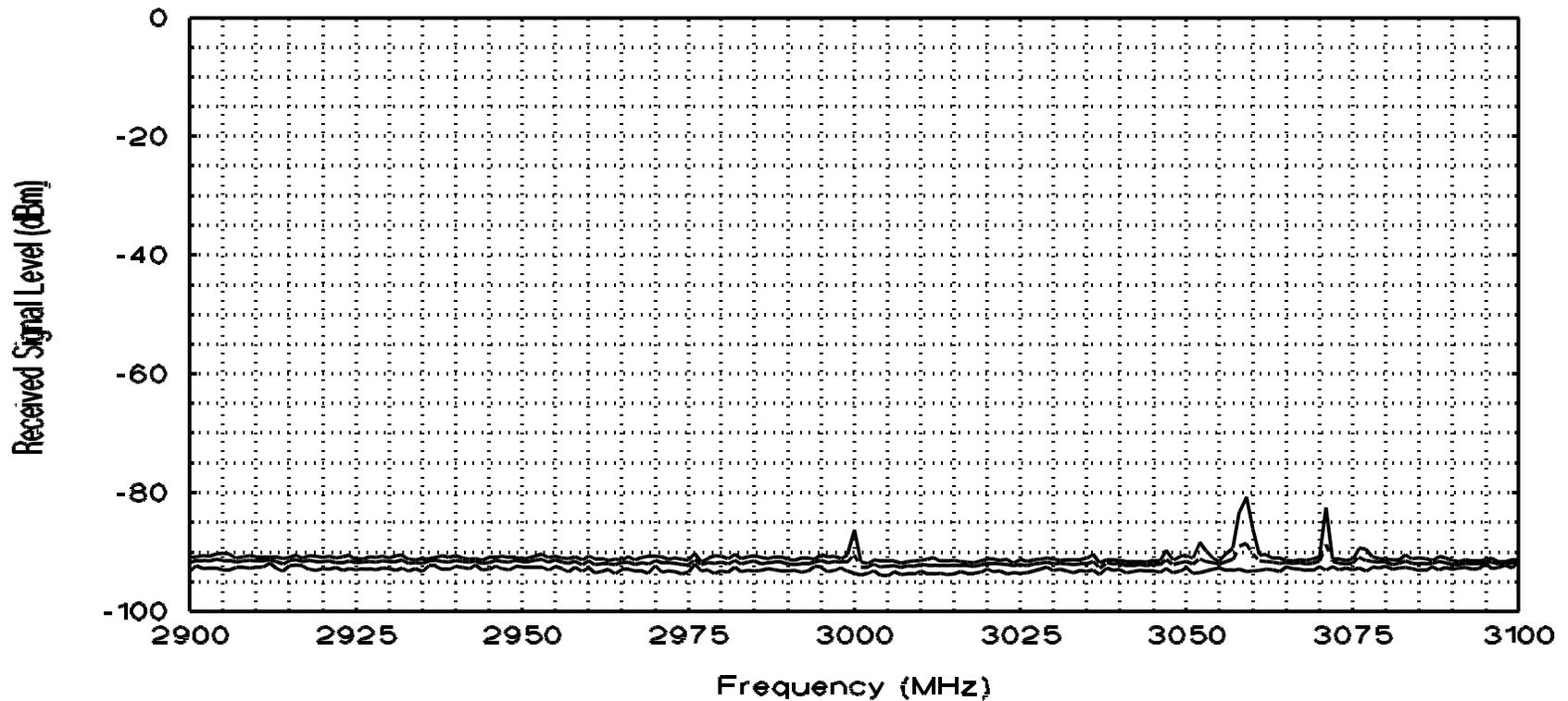
Figure B-24. NTIA spectrum survey graph summarizing two scans across the 2700-2900 MHz range (System-2, band event 13, stepped algorithm, +peak detector, 1000-kHz bandwidth) at Eureka, CA, 1995.

GOVERNMENT ALLOCATIONS:	MARITIME RADIONAVIGATION, Radiolocation, 1, 2.	
NON-GOVERNMENT ALLOCATIONS:	MARITIME RADIONAVIGATION, Radiolocation, 1, 2.	
GENERAL UTILIZATION:	Maritime radars and radar beacons (racons), military high-power 3-D long-range surveillance radars and air traffic control radars.	

2900

3100

B-33



1. Radiolocation assignments are primarily for the military; however, other agency use is permitted for experimentation, research, and survey operations, if no harmful interference occurs.

2. 2900-3000 MHz: Also, allocated for next generation weather radar (NEXRAD) systems.

Figure B-25. NTIA spectrum survey graph summarizing three scans across the 2900-3100 MHz range (System-2, band event 14, stepped algorithm, +peak detector, 1000-kHz bandwidth) at Eureka, CA, 1995.

GOVERNMENT ALLOCATIONS:		
NON-GOVERNMENT ALLOCATIONS:	FIXED, FIXED-SATELLITE (space-to-Earth).	
GENERAL UTILIZATION:	Common carrier microwave radio-relay and television receive only (TVRO) Earth stations.	

3700

4200

B-35

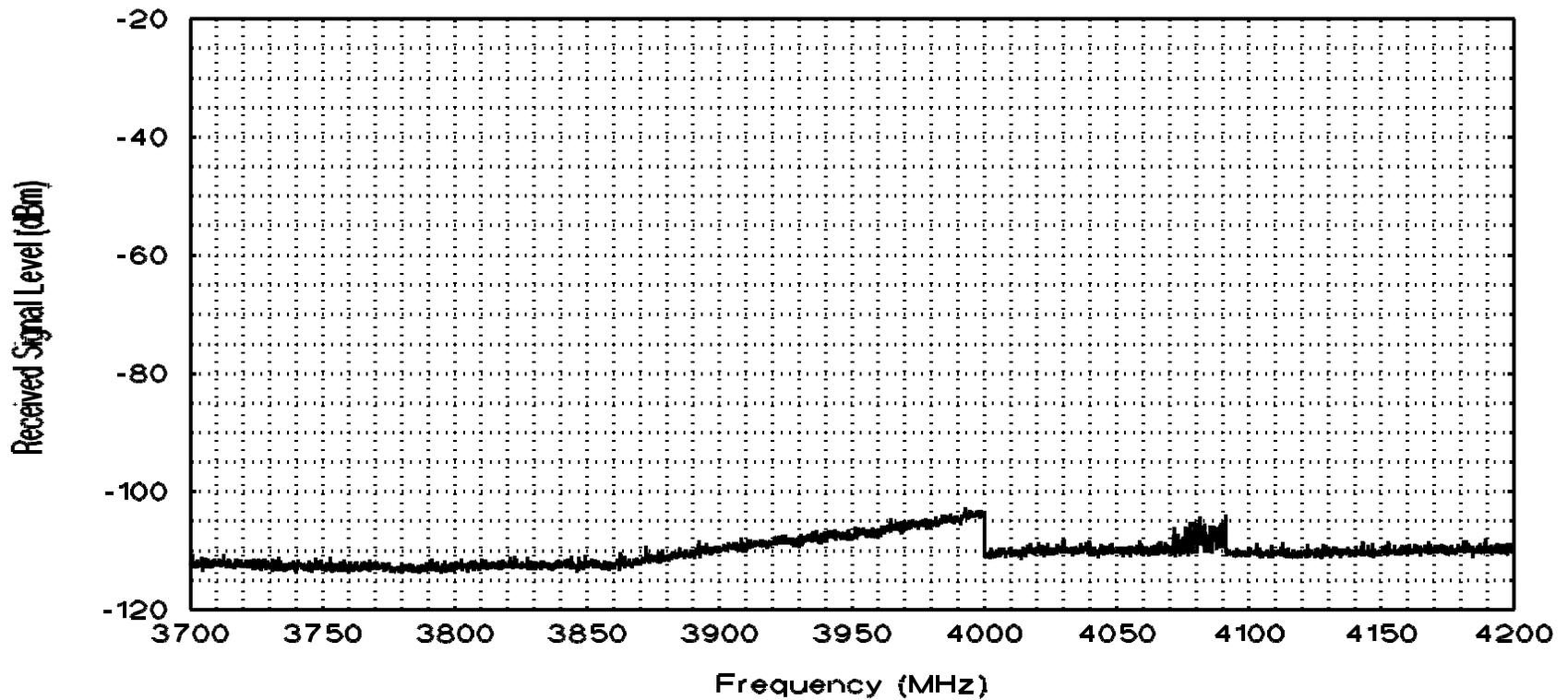


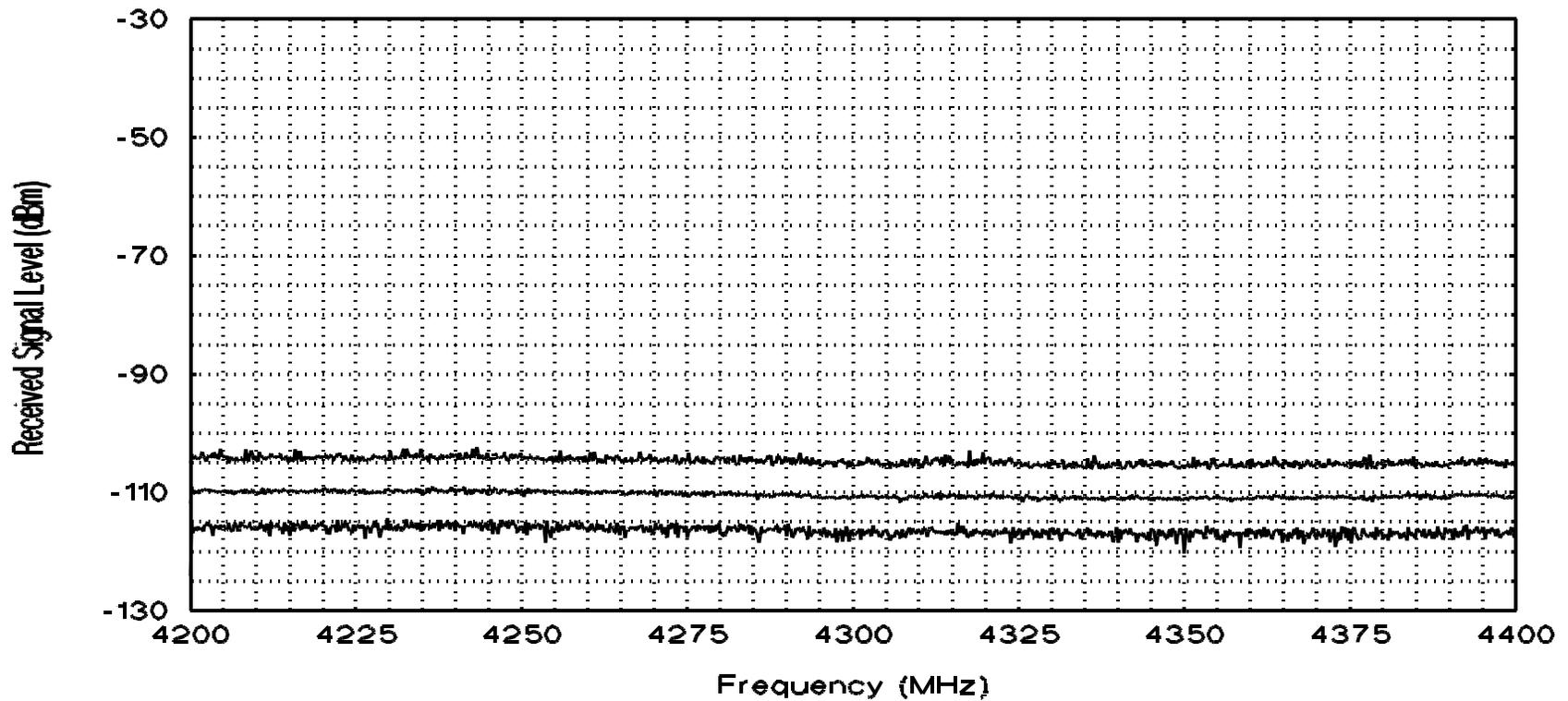
Figure B-27. NTIA spectrum survey azimuth-scan graph of the 3700-4200 MHz range (System-2, band event 16, swept algorithm, maximum-hold detector, 100-kHz bandwidth) at Eureka, CA, 1995.

GOVERNMENT ALLOCATIONS:	AERONAUTICAL RADIONAVIGATION, 1.	
NON-GOVERNMENT ALLOCATIONS:	AERONAUTICAL RADIONAVIGATION, 1.	
GENERAL UTILIZATION:	Airborne radio altimeters.	

4200

4400

B-36



1. 4202 ±12 MHz: Standard frequency and time satellite service (space-to-Earth), permitted.

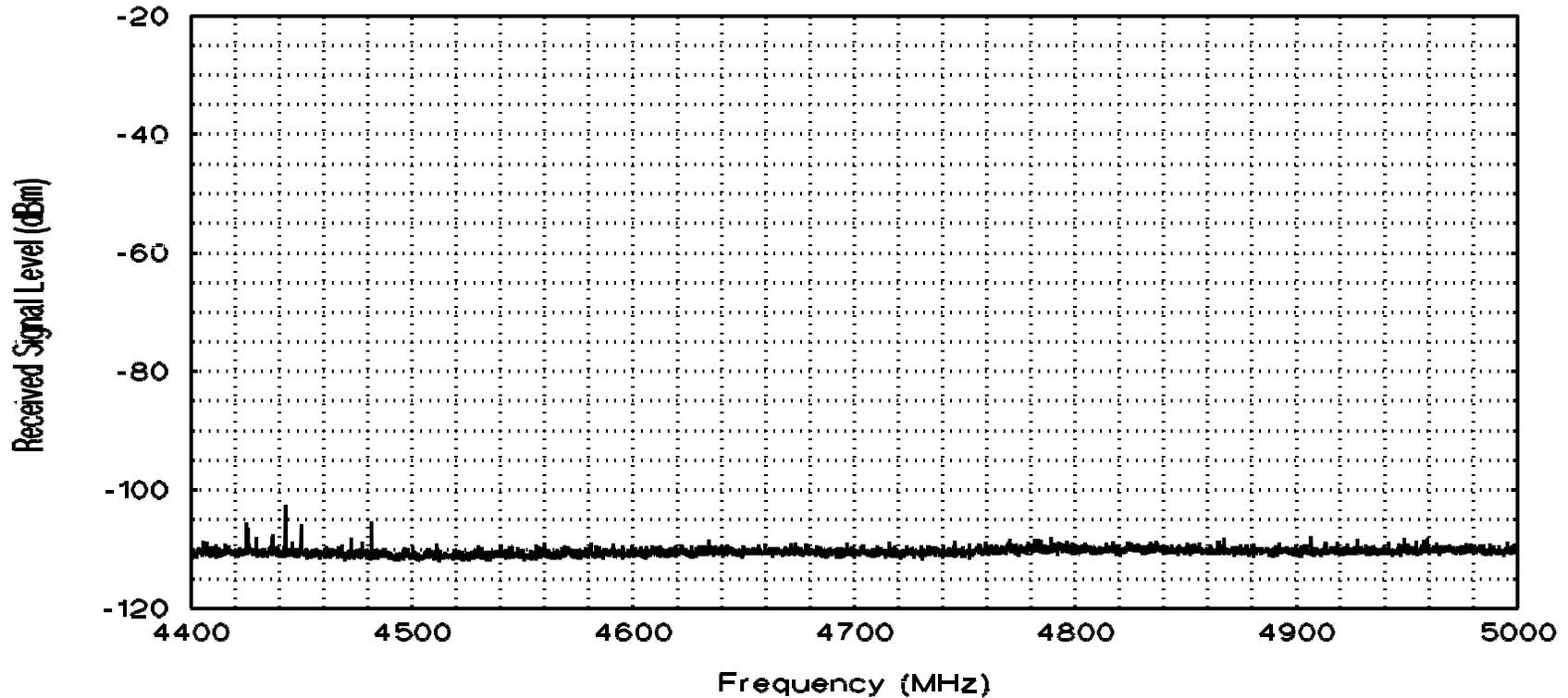
Figure B-28. NTIA spectrum survey graph summarizing 4,000 sweeps across the 4200-4400 MHz range (System-2, band event 17, swept/m3 algorithm, +peak detector, 300-kHz bandwidth) at Eureka, CA, 1995.

GOVERNMENT ALLOCATIONS:	FIXED, MOBILE.		1.
NON-GOVERNMENT ALLOCATIONS:		FIXED-SATELLITE (space-to-Earth). 4500-4800 MHz.	1.
GENERAL UTILIZATION:	Military tactical communications, both line-of-sight and troposcatter.		

4400

4990-5000

B-37



1. RADIO ASTRONOMY, Space Research (Passive).

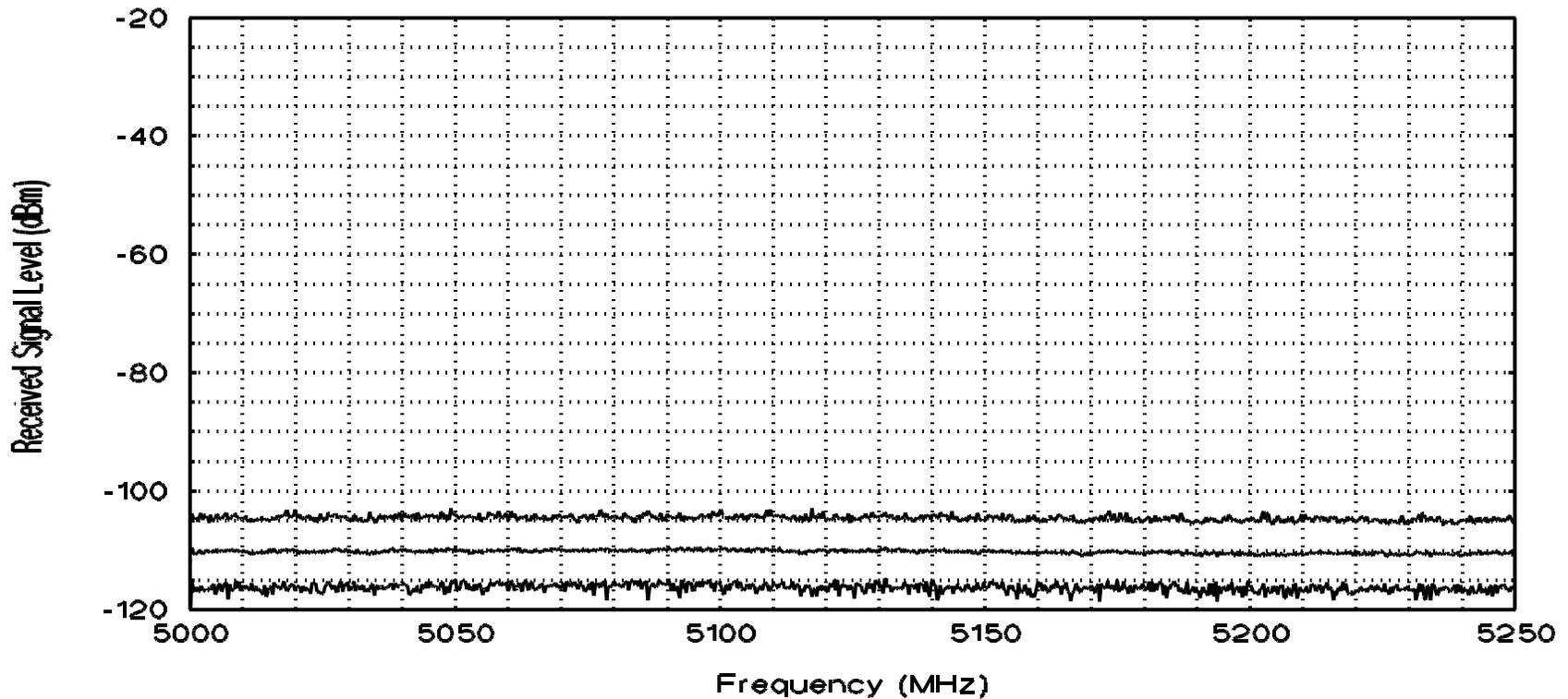
Figure B-29. NTIA spectrum survey azimuth-scan graph of the 4400-5000 MHz range (System-2, band event 18, swept algorithm, maximum-hold detector, 100-kHz bandwidth) at Eureka, CA, 1995.

GOVERNMENT ALLOCATIONS:	AERONAUTICAL RADIONAVIGATION, AERONAUTICAL MOBILE-SATELLITE, 1.	
NON-GOVERNMENT ALLOCATIONS:	AERONAUTICAL RADIONAVIGATION, AERONAUTICAL MOBILE-SATELLITE, 1.	
GENERAL UTILIZATION:	Microwave landing systems.	

5000

5250

B-38



1. Also, 5150-5216 MHz: Fixed-Satellite service (space-to-Earth).

Figure B-30. NTIA spectrum survey graph summarizing 6,000 sweeps across the 5000-5250 MHz range (System-2, band event 19, swept/m3 algorithm, +peak detector, 300-kHz bandwidth) at Eureka, CA, 1995.