



Global Electromagnetic Spectrum Information System SPECTRUM CAPABILITIES



Global Electromagnetic Spectrum Information System (GEMSIS)

GEMSIS is the Defense Spectrum Organization's Joint program of record that is transforming spectrum operations from a pre-planned and static frequency assignment into a dynamic, responsive, and agile capability. GEMSIS provides spectrum management capabilities to further enhance the ease of use, efficiency and effectiveness of spectrum management. The GEMSIS program currently provides the following spectrum services and capabilities:

Integrated Spectrum Desktop (ISD)

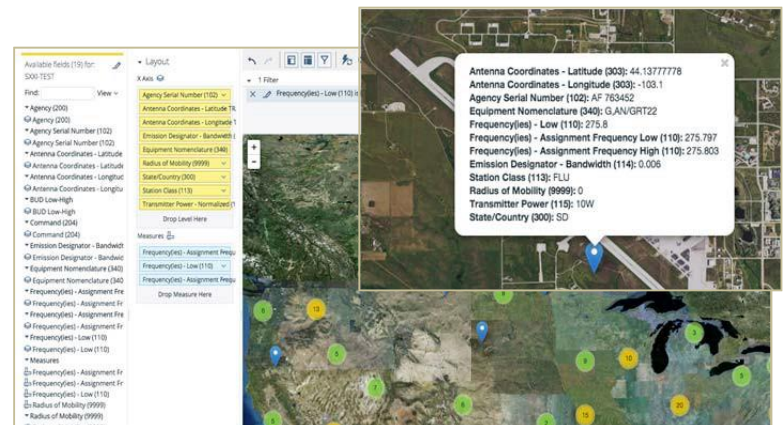
ISD provides a "common desktop" for accessing web-based spectrum management capabilities. Facilitates the integration and interoperability of the spectrum tools. Provides web links to various sites and capabilities used to support the spectrum community.

The ISD facilitates the integration of web-based capabilities within GEMSIS and provides a single web site to access those capabilities. Single sign on will be provided for GEMSIS capabilities. Widget based tools will be available to support users.



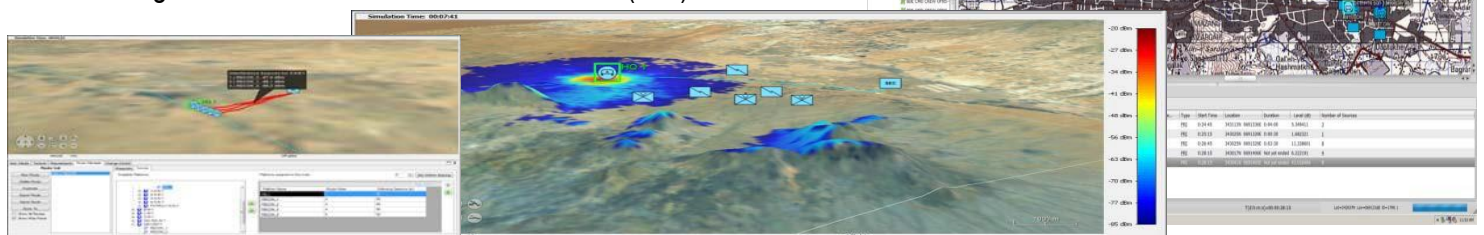
Joint Spectrum Data Repository (JSDR)

JSDR is a comprehensive repository of spectrum management data supporting sources/web services compliant with the MCEB Standard Spectrum Resource Format (SSRF) data standard. It provides access to frequency assignments, spectrum certifications, interference reports, and detailed engineering characteristics and platform employment information. JSDR contains DoD, national, and international spectrum-related information up to the Secret level. The JSDR service interface permits machine-to-machine data exchange with other programs requiring access to spectrum data.



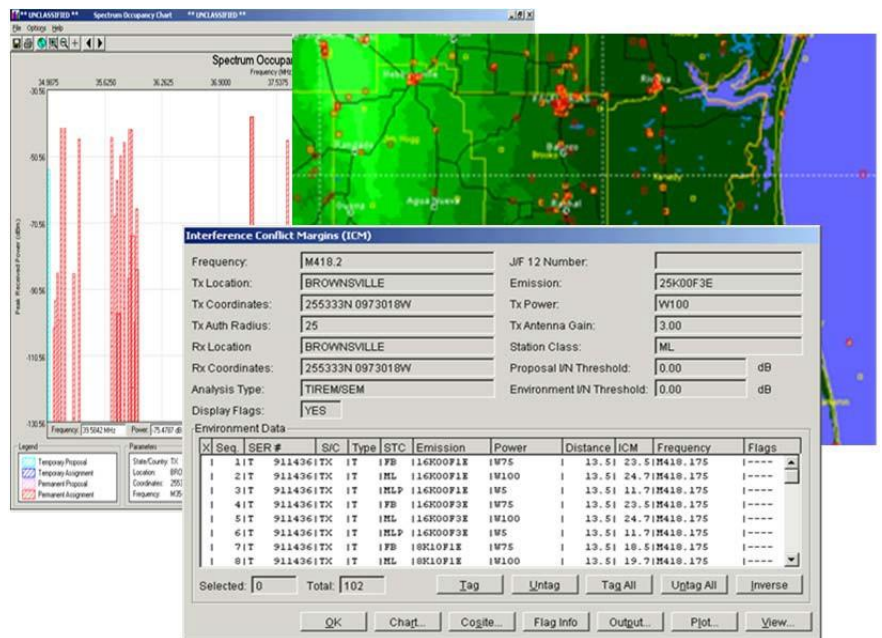
Coalition Joint Spectrum Management Planning Tool (CJSMPT)

CJSMPT collects Unit, Platform, and Equipment characteristics data for a specific mission or exercise that can be used for analysis and simulation to more effectively manage the electromagnetic environment (EME). It provides spectrum managers with an enhanced capability to identify and mitigate potential electromagnetic interference in an Area of Interest (AOI).



Spectrum XXI (SXXI)

SXXI is a Joint spectrum management tool for DoD management of radio frequencies. It provides frequency managers with a single information system that addresses spectrum management automation requirements. SXXI supports DOD planning and operations with frequency management workflow capabilities, Radio Frequency (RF) engineering analyses, data validation, regulatory compliance checks and visualization tools. Through foreign military sales and NATO support, SXXI is also used heavily by coalition partners. GEMSIS is working to expand SXXI's capabilities and significantly modernize the application's code base to support DoD into the future.



End-to-End Supportability System (E2ESS)

E2ESS provides a data collection tool and database for spectrum supportability business processes. Provides worldwide visibility of host nation spectrum dependent equipment's supportability. E2ESS will integrate and evolve both Stepstone and Host Nation Spectrum Worldwide Database Online (HNSWDO) capabilities to meet GEMSIS E2E supportability requirements.

Host Nation Spectrum Worldwide Database Online

HNSWDO is a web application providing worldwide visibility of host nation radio frequency spectrum dependent equipment's supportability. It automates distribution of host nation coordination requests and Combatant Command submission of host nation supportability comments.

The screenshot shows the HNSWDO Online interface. It includes a search bar, a list of HNCRs that were rejected, and a table with details for each HNCR. The table has columns for JIF12num, System Name, HNCR Number, Service (Priority), Reject Reason, Rejected On, and Changed On. The table lists three HNCRs that were rejected due to missing required documentation.

JIF12num	System Name	HNCR Number	Service (Priority)	Reject Reason	Rejected On	Changed On
08370	CJ TEST SYS	KC08370.001	3	MISSING REQUIRED DOCUMENTATION	4/5/2012 11:14:19 AM	4/5/2012 11:14:19 AM
00028	ANTRC-024	EC00028.005	3	MISSING REQUIRED DOCUMENTATION	5/19/2011 2:58:12 PM	10/18/2011 4:13:10 PM
14006	NEXGEN CNR DC	CC14006.007	3	MISSING REQUIRED DOCUMENTATION	2/17/2011 4:38:29 PM	10/18/2011 4:13:10 PM

Stepstone

Stepstone is an online resource for data capture of parametric information for spectrum dependent equipment supporting the spectrum certification and spectrum supportability processes. It provides a mechanism for the Services and industry to complete an "Application for Equipment Frequency Allocation" (DD Form 1494), compliance checks to assure data quality, collaboration and workflow capabilities and certification process metrics.

The screenshot shows the Stepstone interface, specifically the Equipment Spectrum Certification (ESC) process manager. It includes a search bar, a list of ESC requests, and a table with details for each request. The table has columns for Request Number, Request Title, Request Status, Request Date, and Request Owner. The table lists several ESC requests, including one for the Army Spectrum Management Office (ASMO) and one for the Air Force Spectrum Management Agency (AFSMA).

Request Number	Request Title	Request Status	Request Date	Request Owner
1	HNC Review	New	145	42
2	Preview	SMO Inbox	31	1
3	SMO Review	SPS Approval		

GEMSIS Contact Information

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