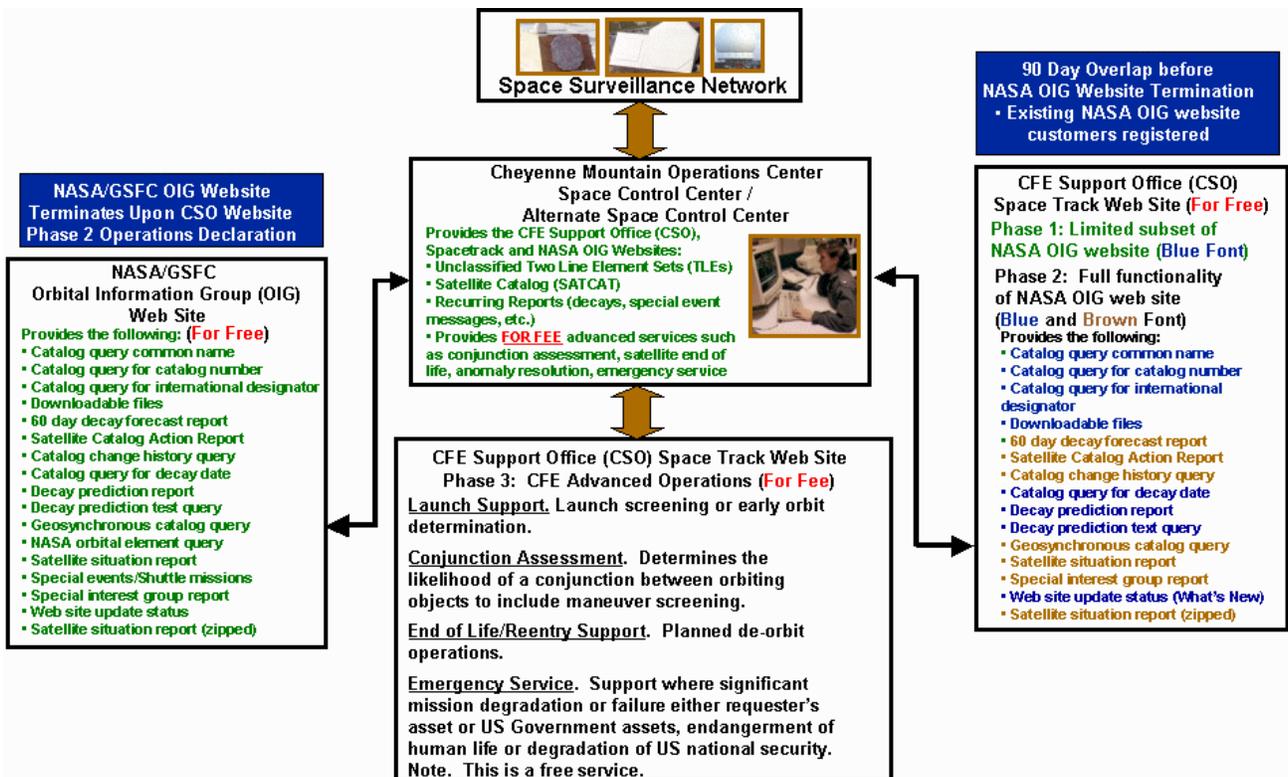


# Commercial and Foreign Entities (CFE) Support Pilot Program

CFE space operators often request United States' space surveillance support to mitigate hazards facing their space assets. Section 2274, Chapter 135, Title 10, United States Code as amended by the 2004 Defense Authorization Act, directs DoD to implement a 3-year pilot program to provide these services. To accomplish this, HQ Air Force Space Command (HQ AFSPC) will use the capabilities and commercial experience of selected federally funded research and development centers. The pilot program will stand up in three phases, gradually transitioning CFE support responsibilities from NASA to AFSPC. The pilot program is projected to begin Fall 2004, after direction has been received from the Secretary of Defense as required by section 2274

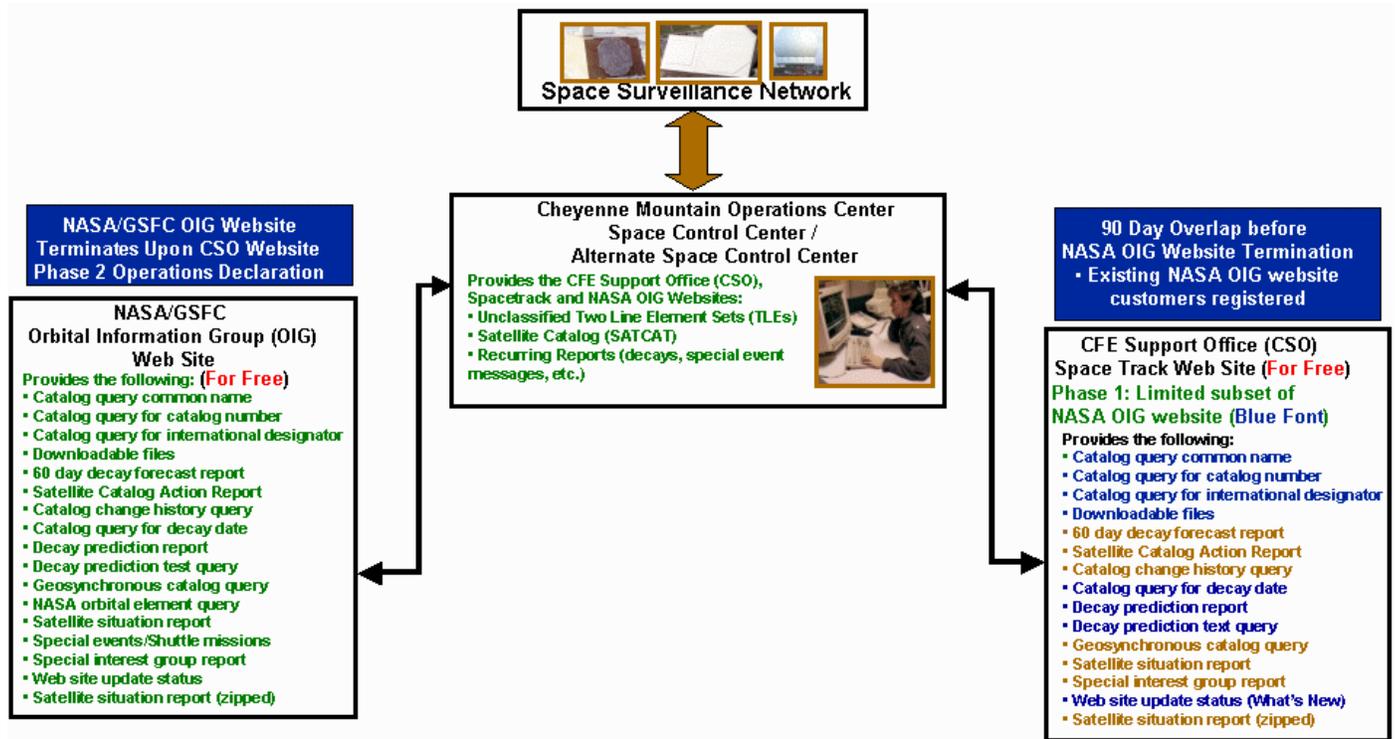
In addition to the free orbital data already provided on NASA's Orbital Information Group (OIG) website, AFSPC will also offer advanced analytical support such as on-orbit conjunction assessment and pre-launch safety screenings, for a fee. The advanced support and fees are still to be determined. The goal of the program is to provide increased situational awareness for commercial and foreign space operators, improving orbital safety for all space vehicles.

Under the direction of AFSPC/XOC, The Aerospace Corporation will operate the CFE Support Office (CSO) that will interface with commercial and foreign entities on behalf of AFSPC. The CSO is responsible for developing the Space-Track website that will ultimately replace the NASA OIG website. The figure below graphically represents all three phases of the CFE Support Pilot Program.



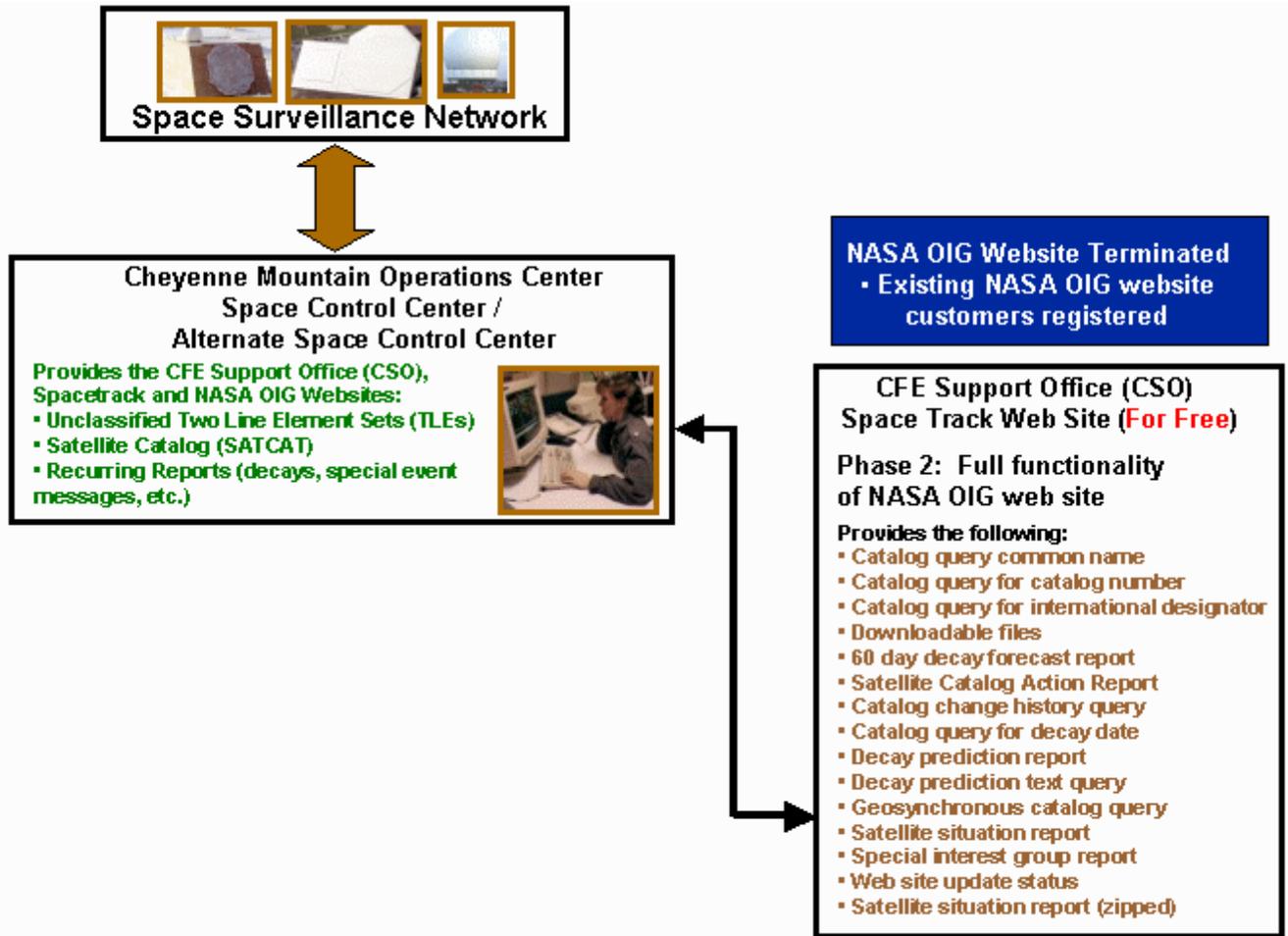
**Figure 1: The Three Phases of the CFE Support Pilot Program**

**Phase 1: CFE/OIG Parallel Operations.** During phase 1, the CSO will activate the Space-Track website offering a limited subset of the NASA OIG website functionality. There is a planned 90 day transition period in which existing OIG customers will be encouraged to register and activate their accounts on the CSO's Space-Track website. The NASA OIG website will advertise their website's termination date. During this phase, the CSO will continue to add functionality in order to fully replicate OIG capabilities. Capabilities implemented as of 10 September 2004 include the following: catalog query for common name; catalog query for catalog number; catalog query for international designator, downloadable files, catalog query for decay date, decay prediction report and web site update status. Downloadable files provide the customer a means to get the entire unclassified satellite catalog, all unclassified element set files, or selected groups of each. See figure below that graphically represents phase 1 operations.



**Figure 2: Phase 1 Operations for the CFE Support Pilot Program**

**Phase 2: CFE Basic Operations.** Phase 2 will be accomplished once the Space-Track Website has completed replicating the OIG website capabilities, but no earlier than 90 days after Phase 1 initiation. At the initiation of Phase 2, NASA OIG will terminate its operations. Services provided via the Space-Track website include: catalog query common name; catalog query for catalog name; catalog query for international designator; downloadable files; 60-day decay forecast report; satellite catalog action report; catalog change history query; catalog query for decay date; decay prediction test query; geosynchronous catalog query; satellite situation report; special events; special interest group report; web site update status; satellite situation report (zipped). See figure below that graphically represents phase 2 operations.

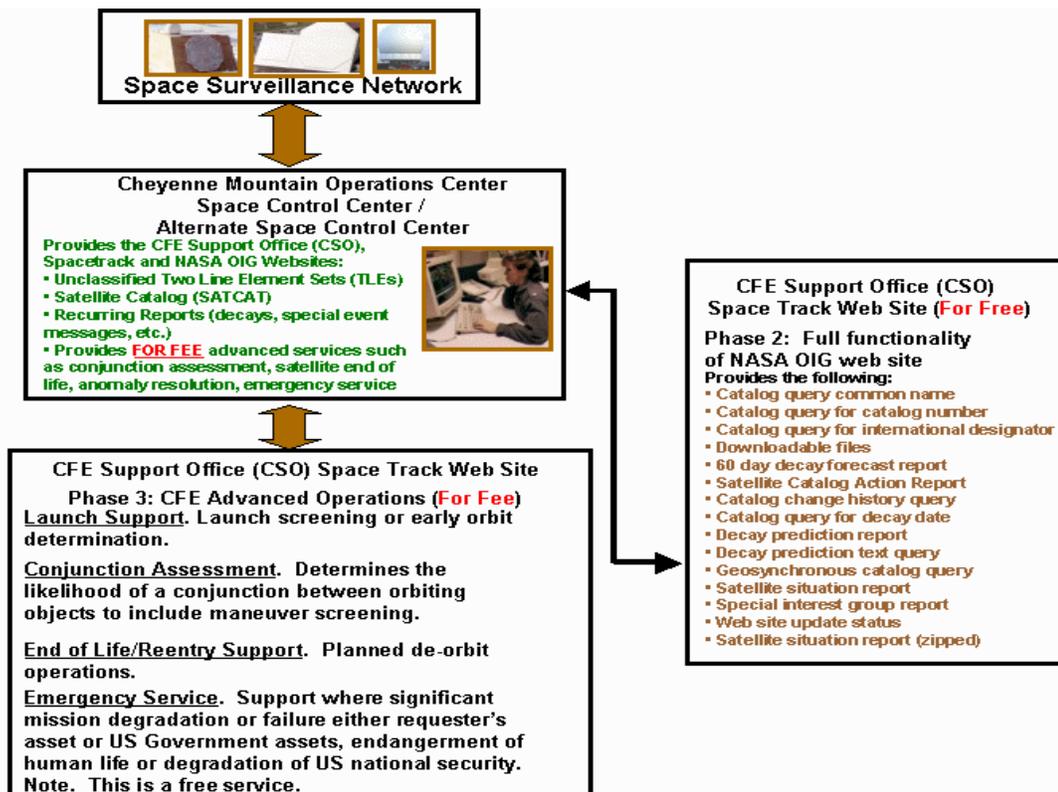


**Figure 3: Phase 2 Operations for the CFE Support Pilot Program**

**Phase 3: CFE Advanced Operations.** In Phase 3, the CSO begins phasing in advanced services and products that are provided on a fee-for-service basis because of the additional analysis and manipulation required by the Space Control Center (SCC) and Alternate Space Control Center (ASCC) personnel. Potential services provided:

- All services provided by Phase 1 and Phase 2.
- **Launch Support.** Pre-Launch safety screenings and/or early orbit determination.
- **Conjunction Assessment (CA).** CA determines the likelihood of a conjunction between orbiting objects. This includes screening for planned maneuvers.
- **End-of-Life/Reentry Support.** Includes reentry support and planned de-orbit operations.
- **Anomaly Resolution Support.** Includes attitude determination, spacecraft configuration, etc.
- **Performing Emergency Service.** Emergency support is required when significant mission degradation or failure for either the requester's asset or US government assets, endangerment of human life or degradation of US national security. This is a free service.

See the figure below that graphically represents phase 3 operations.



**Figure 4: Phase 3 Operations for the CFE Support Pilot Program**

**Contact Information.** If you require additional information concerning CSO, contact Lt Col Dave Maloney at (719) 554-3092, DSN 692-3092, [david.maloney1@peterson.af.mil](mailto:david.maloney1@peterson.af.mil) or Mr. Mark Riddle at (719) 554-9582, DSN 692-9582, [mark.riddle@peterson.af.mil](mailto:mark.riddle@peterson.af.mil).

As of: 10 September 2004