

**Letter of Understanding (LOU)
between the
Infrared Processing and Analysis Center (IPAC)
and the
National Space Science Data Center (NSSDC)**

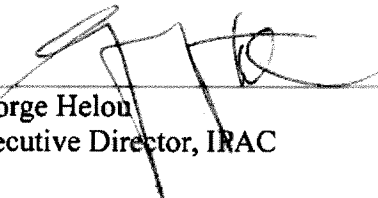
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1. Introduction

This is a Letter of Understanding (LOU) between the National Space Science Data Center (NSSDC) and the Infrared Processing and Analysis Center (IPAC) at the California Institute of Technology. It documents the roles of those organizations in the acquisition, management, dissemination and preservation of Level 0 data, the engineering data archive and the final, publicly released science data products from the Wide-field Infrared Survey Explorer (WISE) mission. This LOU may be amended as a result of further agreements between the NSSDC and the IPAC.

WISE Level 0 data are constructed by depacketizing and decompressing raw science image telemetry packets, merging them with engineering telemetry and ancillary files and converting to FITS format. The engineering data archives include engineering telemetry files, ancillary navigation files, and orbital events files, all of which will be in text format as supplied by the WISE Mission Operations System to IPAC. The final WISE science products include the Image Atlas and Source Catalog.

This LOU will be reviewed and revised by the NSSDC and the IPAC as needed. Inconsistencies between current practices and LOU statements, or future modifications to this LOU, will be addressed and resolved/agreed by the Director of NSSDC, the IPAC management, and the WISE program scientist when needed.

The NSSDC was created in 1966 as NASA's only archive for space and Earth science data. The NSSDC's data management role has evolved with the emergence of a series of active archives in both space and Earth science. Presently it has permanent archiving responsibility for NASA space science mission data. It has active archiving responsibilities in certain space science discipline areas. It has additional roles not germane to this LOU. The NSSDC home page is at <http://nssdc.gsfc.nasa.gov/>.

IPAC is the WISE Science Center (WSDC) and is responsible for receiving raw science and engineering telemetry and ancillary files from the WISE Mission Operations Center. WSDC will process the raw data, archive and distribute the final science products to the community. A fundamental role of the WSDC is to oversee the creation of the WISE archive.

The final WISE science data products will be archived at and served to the community by the Infrared Science Archive (IRSA) at IPAC, NASA's "active" archive for infrared and sub-millimeter astronomy missions. IRSA is a NASA Science Research Archive Center (SARC), and the interface between IRSA and NSSDC is described by a Memorandum of Understanding (MOU) between IPAC and the NSSDC dated 31 October 2006. As such, the delivery of final WISE data products to the NSSDC is governed by that MOU.

This LOU is intended as a supplement to the IPAC/NSSDC MOU to describe the delivery of WISE Level 0 and engineering data from the WSDC to the NSSDC following the end of WISE mission activities and the Level of Service requested at the NSSDC.

2. The Responsibilities of the IPAC/WSDC and the NSSDC

RESPONSIBILITIES: IPAC/WSDC

- The WSDC shall transfer the Level 0 data to the NSSDC within 1 month of the end of WISE on-orbit operations, which is expected to last at least 7 months following launch.
- The WSDC shall transfer the engineering data archive to the NSSDC within 1 month of the end of WISE on-orbit mission activities.
- The WSDC requests only Backup Level of service from NSSDC.
- The WSDC shall transfer these data on LTO3 tapes provided by the WSDC. The current estimate of the total data volume at the end of the WISE mission is roughly (20-40) TB.
- The WSDC shall include a manifest with each data tape delivery describing the data content, volume per tape etc.
- The WSDC shall maintain a copy of the manifests.
- The WSDC shall request the return of these tapes, as needed.
- IPAC/WSDC shall negotiate with the NSSDC any amendments to this LOU, as needed.

RESPONSIBILITIES: NSSDC

- The NSSDC shall receive LTO3 tapes from the WSDC following the end of WISE on-orbit operations.
- The NSSDC shall acknowledge to IPAC/WSDC receipt of each shipment with sufficient inventory information to identify any items lost in transit.
- The NSSDC shall simply inventory the tapes and put them on the shelf. Unless this LOU is amended, these data tapes will not be transformed into Archival Information Packets (AIPs). In addition, the NSSDC is not responsible for a migration plan from legacy media, or for the implementation of such a plan.
- The NSSDC will not be required to distribute data.
- The NSSDC shall return these tapes to the WSDC if requested.
- The NSSDC shall negotiate with the IPAC/WSDC any amendments to this LOU, as needed.