Letter of Understanding (LOU)
between IPAC at the California Institute of Technology
and the
NASA Space Science Data Coordinated Archive (NSSDCA)

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1. Introduction

This is a Letter of Understanding (LOU) between the NASA Space Science Data Coordinated Archive (NSSDCA) and IPAC at the California Institute of Technology (IPAC). It documents the roles of those organizations in the acquisition, management, dissemination and preservation of Level 0 data, and the engineering data archive from the Near Earth Object Wide-field Infrared Survey Explorer (NEOWISE) Reactivation mission. This LOU may be amended as a result of further agreements between the NSSDCA and IPAC.

NEOWISE 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 includes engineering telemetry files, ancillary navigation files, and orbital events files, all of which will be in text format as supplied by the NEOWISE Mission Operations System at JPL to IPAC.

This LOU will be reviewed by the NSSDCA and 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 NSSDCA, IPAC management, and the relevant Science Mission Directorate (SMD) program executives when needed.

The NSSDCA was created in 1966 as NASA's only archive for space and Earth science data. The NSSDCA'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 NSSDCA home page is at http://nssdc.gsfc.nasa.gov/.

IPAC is the WISE/NEOWISE Science Center (WSDC) and is responsible for receiving raw science and engineering telemetry and ancillary files from the NEOWISE Mission Operations Center. IPAC processes the raw data, performs science data quality assessment, archives those data, and distributes the final science products to the community. A fundamental role of IPAC is to oversee the creation of the NEOWISE archive.

The final NEOWISE science data products will be archived at and served to the community by the NASA/IPAC Infrared Science Archive (IRSA; https://irsa.ipac.caltech.edu/), NASA’s archive for infrared and sub-millimeter astronomy missions. IRSA is a NASA Science Research Archive Center (SARC), and the interface between IRSA and NSSDCA is described by a Memorandum of Understanding (MOU) between IPAC and the NSSDC dated 31 October 2006. As such, any delivery of final NEOWISE data products to the NSSDCA is governed by that MOU.

This LOU is intended as a supplement to the IPAC/NSSDC LOU of 30 January 2009 that described the delivery of WISE Level 0 data from IPAC to the NSSDCA following the

end of primary WISE mission activities and the Level of Service requested at the NSSDCA.

2. The Responsibilities of IPAC and the NSSDCA

RESPONSIBILITIES: IPAC

IPAC shall transfer the Level 0 data to the NSSDCA at the end of NEOWISE on-orbit operations, which is currently planned to be July 31, 2024.

IPAC shall transfer the engineering data archive to the NSSDCA at the end of NEOWISE on-orbit mission activities.

The initial Backup Level of service is requested.

IPAC shall transfer these data on LTO5-LTO7 or more advanced tape provided by the IPAC. The current estimate of the total data volume at the end of the NEOWISE mission is ~120 TB.

IPAC shall include a manifest with each data tape delivery describing the data content, volume per tape etc.

IPAC shall maintain a catalog of the holdings at the NSSDCA.

IPAC shall request the return of these tapes, as needed.

IPAC shall negotiate with the NSSDCA any amendments to this LOU, as needed.

RESPONSIBILITIES: NSSDCA

The NSSDCA shall receive tapes from IPAC following the end of NEOWISE on-orbit operations.

The NSSDCA shall 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 NSSDCA is not responsible for a migration plan from legacy media, or for the implementation of such a plan.

The NSSDCA will not be required to distribute data.

The NSSDCA shall return these tapes to IPAC if requested.

The NSSDCA shall negotiate with the IPAC any amendments to this LOU, as needed.