

SEAN sea otter monitoring SOP 15: Tracklogs (deliverable SO_E)

Revision History Log:

Previous SOP version	Effective Date	Revised By	Changes Made	New SOP version
-	September 2018	Jamie Womble	Initial version	1.0

Summary

During the course of aerial surveying, a stream of photographs are taken as a separate GPS unit simultaneously records trackpoints. They are saved to a USB thumb drive in GPX format during SOP 6 QC processing. After all aerial surveys are complete all tracklogs are downloaded from the USB drive to the NPS network. These GPX files are zipped into a single SO_E package, validated, accepted, and disseminated. The accepted deliverable SO_E is subsequently used to geocode the stream of photographs during the SO_C generation process.

Detailed Steps

1. Project leader tasks
 1. Copy the GPX trackpoint files generated in SOP 6 to the network folder [\\sean.glba.nps.gov\Data\SEAN_Data\Work_Zone\SO\SO_E\yyyy](\\sean.glba.nps.gov\Data\SEAN_Data\Work_Zone\SO\SO_E\yyyy) where yyyy is the survey year. If necessary, create the yyyy folder. If the folder already exists and has a prior set of files in it, delete the old files.
 2. Merge them into one ZIP file using Windows Explorer or similar tool
 3. Name the resulting file SO_E_yyyy.ZIP where yyyy is the survey year.
 4. Submit to data manager for product validation.
 1. Specify the survey year to be validated.
 2. The data manager will know where to find the file.
2. Data manager tasks
 1. Perform validation against criteria specified in appendix A.
 2. Include well-formed GPX/XML verification using automated tool.
 3. Report results to project leader.
3. Project leader tasks
 1. If submission is not valid
 1. Edit corrections until product appears to be in valid state.
 2. Resubmit to data manager for another validation attempt.
 2. If submission is valid then review final product for certification
 1. If not of adequate quality, despite meeting formal validation, notify data manager to withdraw the current candidate from further consideration
 2. If judged to be of best quality then notify data manager it is accepted to be publicly disseminated
4. Data manager tasks

1. If project leader wishes the deliverable withdrawn then mark it withdrawn in the deliverable tracking system and inform project leader.
2. If project leader accepts the candidate
 1. Install in Data Store repository
 1. Use reference type Generic Dataset.
 2. If sensitive information is not present then make the repository entry available to public, otherwise restrict to SEAN staff.
 2. Install in the SEAN production web site.
 1. If sensitive information is present then have the product's web link indicate the product is not available instead of accessing the deliverable file.
 3. Mark it C (for Accepted) in the submission log.
 4. Record product status in tracking tables.
 5. Inform project leader the deliverable has been deployed.

Appendix SOP_15.A: Tracklogs – detailed deliverable definitions

Purpose of Deliverable

Records detailed GPS location data intended to be subsequently used to geocode photos.

Frequency Produced

SO_E is generated once for each full survey effort performed. Typically this is once per year.

Prerequisites

Before recording trackpoints, the survey transects need to be fully defined. All flights for the current survey effort must be complete before building SO_E.

Data Flow

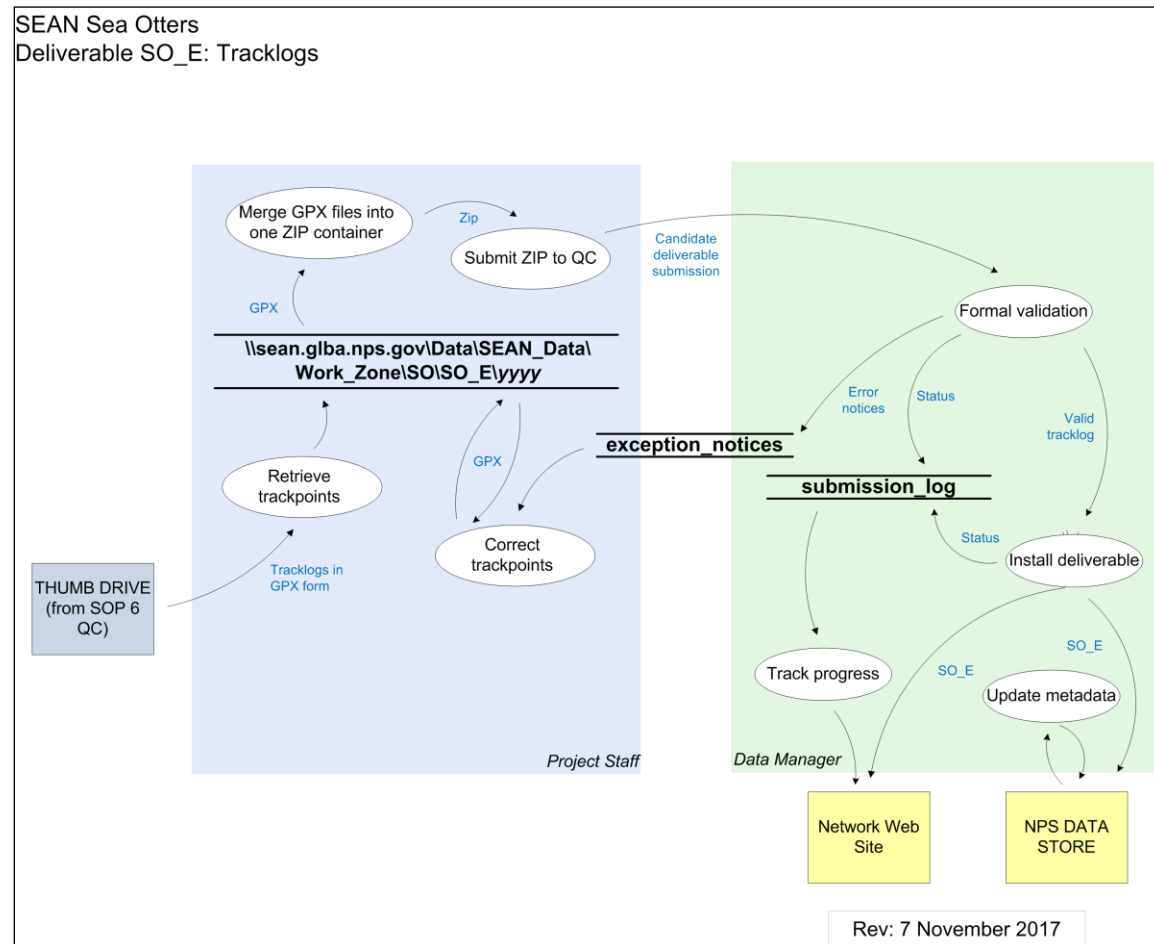


Figure SOP-15.A.1 Data flow required to generate deliverable SO_E tracklogs.

Deliverable Definition Forms

Form A: Non-tabular Information Deliverable

<i>Vital Sign:</i> SO Sea Otters	<i>Deliverable ID:</i> SO_E	<i>Deliverable Title:</i> Tracklogs
<i>File Format:</i> ZIP containing GPX files	<i>Associated Software and Version:</i> PKZip or similar	<i>Revision Date:</i> 11-07-2017
<i>Expected Frequency:</i> ~12,000 records/survey effort	<i>Submission Unit:</i> Survey year	<i>ID of first protocol it applies to:</i> SO-2017.1
<i>What purpose does this deliverable serve?</i> Recorded location trackpoints are collected in order to later geocode the stream of aerial photographs simultaneously being taken.		
<i>Summary of content:</i> The collection of all trackpoints recorded during aerial surveys as one GPX file per flight packaged as a ZIP container. It is saved in Data Store using the Generic Dataset reference type.		
<i>Mandatory validation criteria:</i> 1. File naming must follow the convention specified in SOP 6 2. Must comply with the GPX 1.1 standard. The schema definition may be found at http://www.topografix.com/gpx/1/1/gpx.xsd.		
<i>Optional validation criteria:</i> 1. Trackpoints should represent locations within Glacier Bay proper. 2. Date, time, latitude, longitude and altitude attributes should not be null.		
<i>Deliverable ID of any other SEAN data products required to create this product</i> None.		
<i>Description and source of any outside data required to create this product:</i> The original data are created by a GPS unit, from which trackpoints are extracted. These tracklog files are accumulated on a USB thumb drive during the QC processes of SOP 6. They must be retrieved from the USB drive before deliverable SO_E may be built.		