



Beacon Type Approval Process

Beacon Manufacturers Workshop

2015

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Background

- National Authorities are recommended to require manufacturers to comply with the provisions of the C/S T.007 document.
- The process is governed by C/S documents
 - T.001 - Specification for Cospas-Sarsat 406 MHz Distress Beacons
 - T.007 - Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard
 - T.008 - Cospas-Sarsat Acceptance of 406 MHz Beacon Type Approval Test Facilities
 - G.005 - Cospas-Sarsat Guidelines on 406 MHz Beacon Coding, Registration and Type Approval



Background

- There is already a Type Approval Workshop that is being held as a separate RTCM SC-110 group to try to improve the process.
- There have been 3 recent JC papers that document the work of the Type Approval Workshop and attempt to address some of the perceived issues of the Type Approval Process
 - JC-27/5/13 - RTCM WORKSHOP ON THE COSPAS-SARSAT TYPE APPROVAL PROCESS AND RESULTANT PROPOSED CHANGES TO C/S T.007
 - JC-27/5/14 - COSPAS-SARSAT TYPE APPROVAL PROCESS
 - JC-28/5/13 - NON-NOTIFIABLE CHANGES TO TYPE-APPROVED BEACONS IN C/S T.007



Background

- NOAA has been petitioned, publically and privately to improve the Type Approval Process
 - Main Complaints
 1. Length of time to process an approval application.
 2. Requirement for testing, documentation or other justification outside of the specific current requirements of T.001 and T.007.
 3. Non-technical assessments of documentation and marketing claims, eg warranty conditions, not required by T.001 and T.007.
 4. Conditions placed on the Type Approval Certificate that are not related to a requirement of T.001 and T.007.
 5. No method to resolve disputes or provide comments is prescribed in documentation.
 6. No continuous verification of the competence of the test laboratory once test laboratory is approved
 7. Uncertainty in testing procedure for novel designs



Type Approval Process According to T.007

4. COSPAS-SARSAT TESTING PROCEDURE

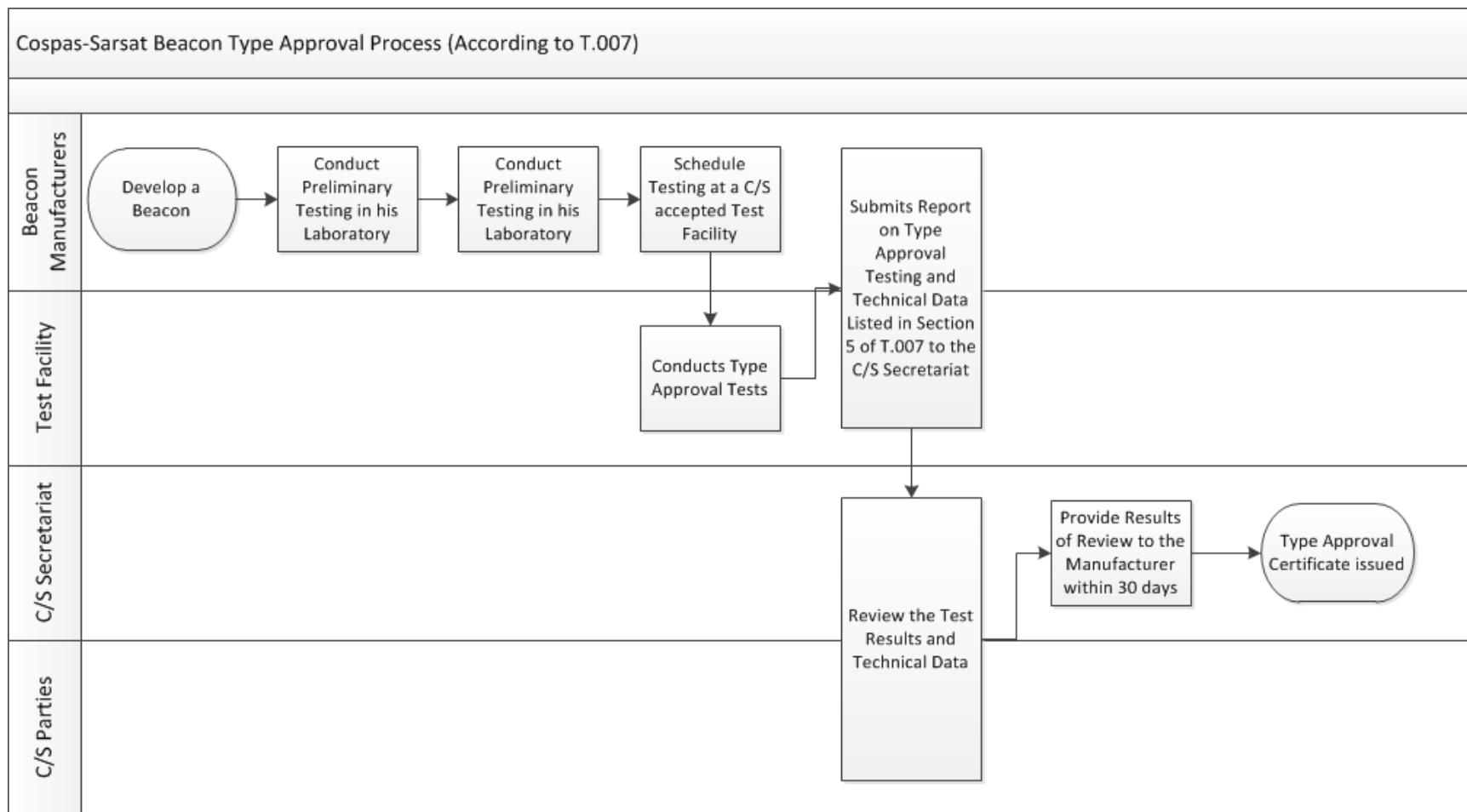
4.1 Sequence of Events

Typical steps to obtain a Cospas-Sarsat Type Approval Certificate for a new beacon are:

- a. manufacturer develops a beacon;
- b. manufacturer conducts preliminary testing in his laboratory;
- c. manufacturer schedules testing at a Cospas-Sarsat accepted test facility;
- d. test facility conducts type approval tests;
- e. manufacturer and/or test facility (as coordinated by the manufacturer) submits to the Cospas-Sarsat Secretariat report on type approval testing, and technical data listed in section 5 of this document;
- f. Secretariat and Cospas-Sarsat Parties review the test results and technical data; and
- g. Cospas-Sarsat Secretariat provides results of review to the manufacturer within approximately 30 days, and if approved, a Cospas-Sarsat Type Approval Certificate is subsequently issued.



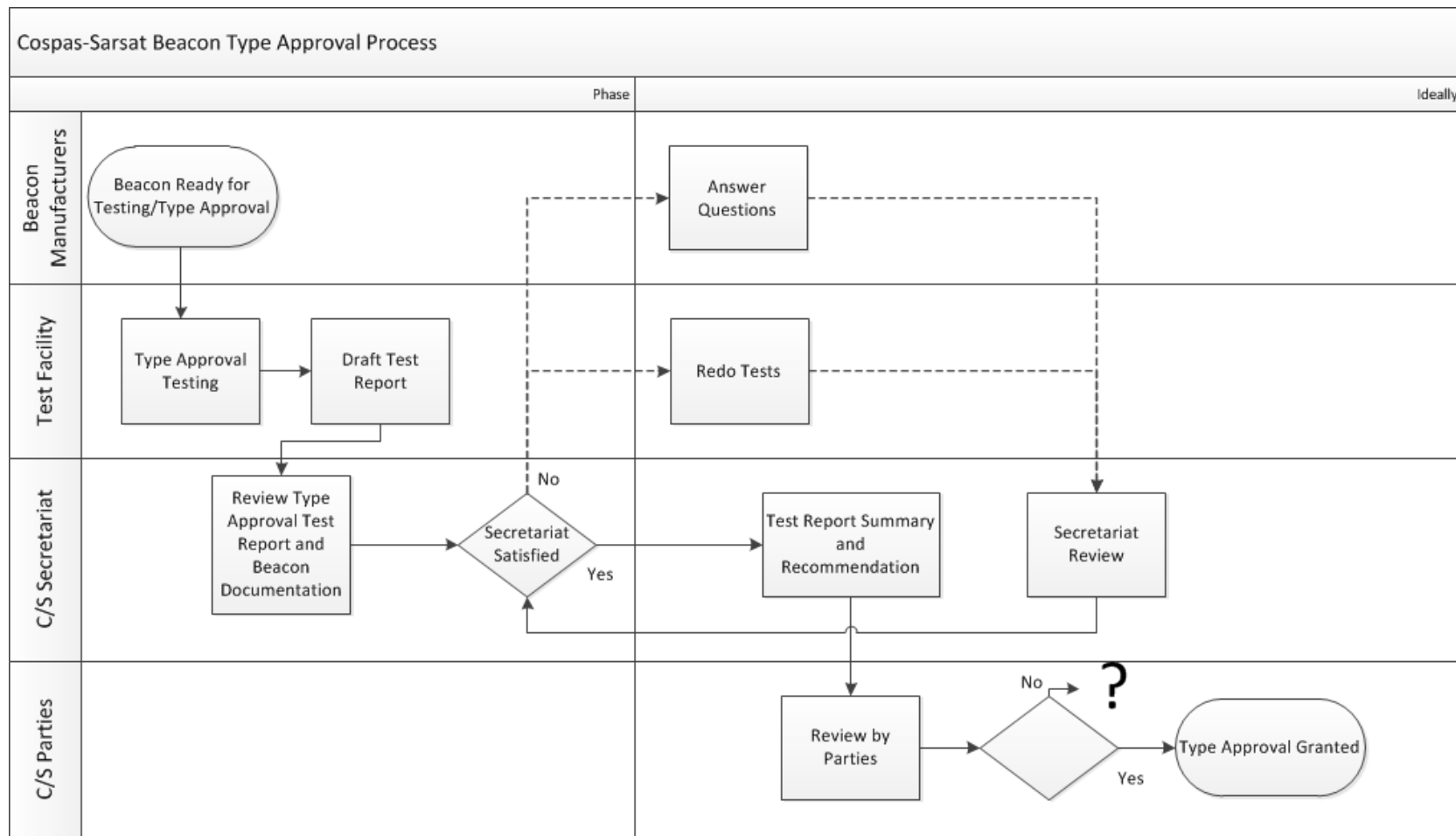
Type Approval Process Flowchart According to T.007





Type Approval Process Flowchart

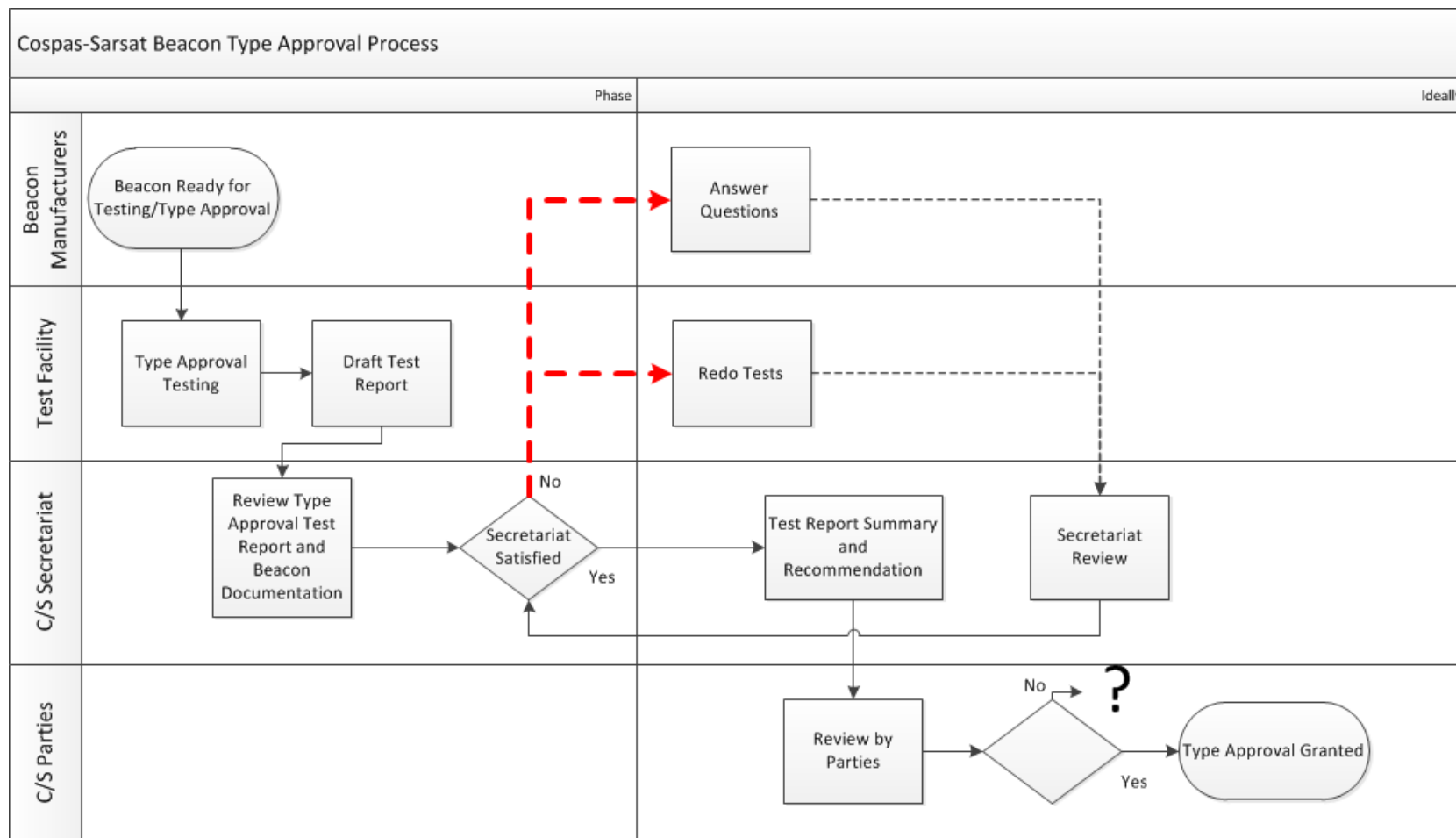
What Actually Happens





Type Approval Process Flowchart

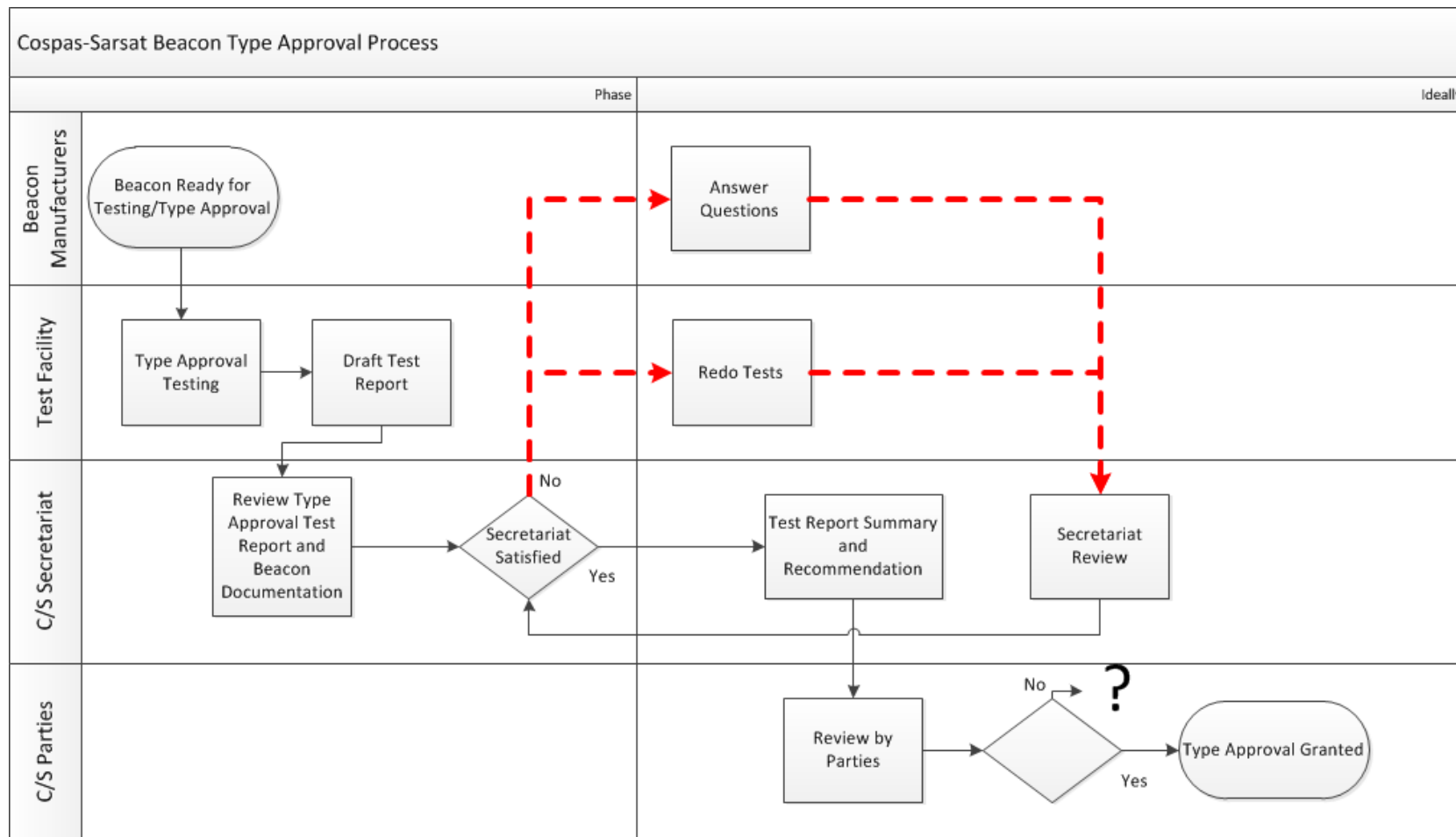
What Actually Happens





Type Approval Process Flowchart

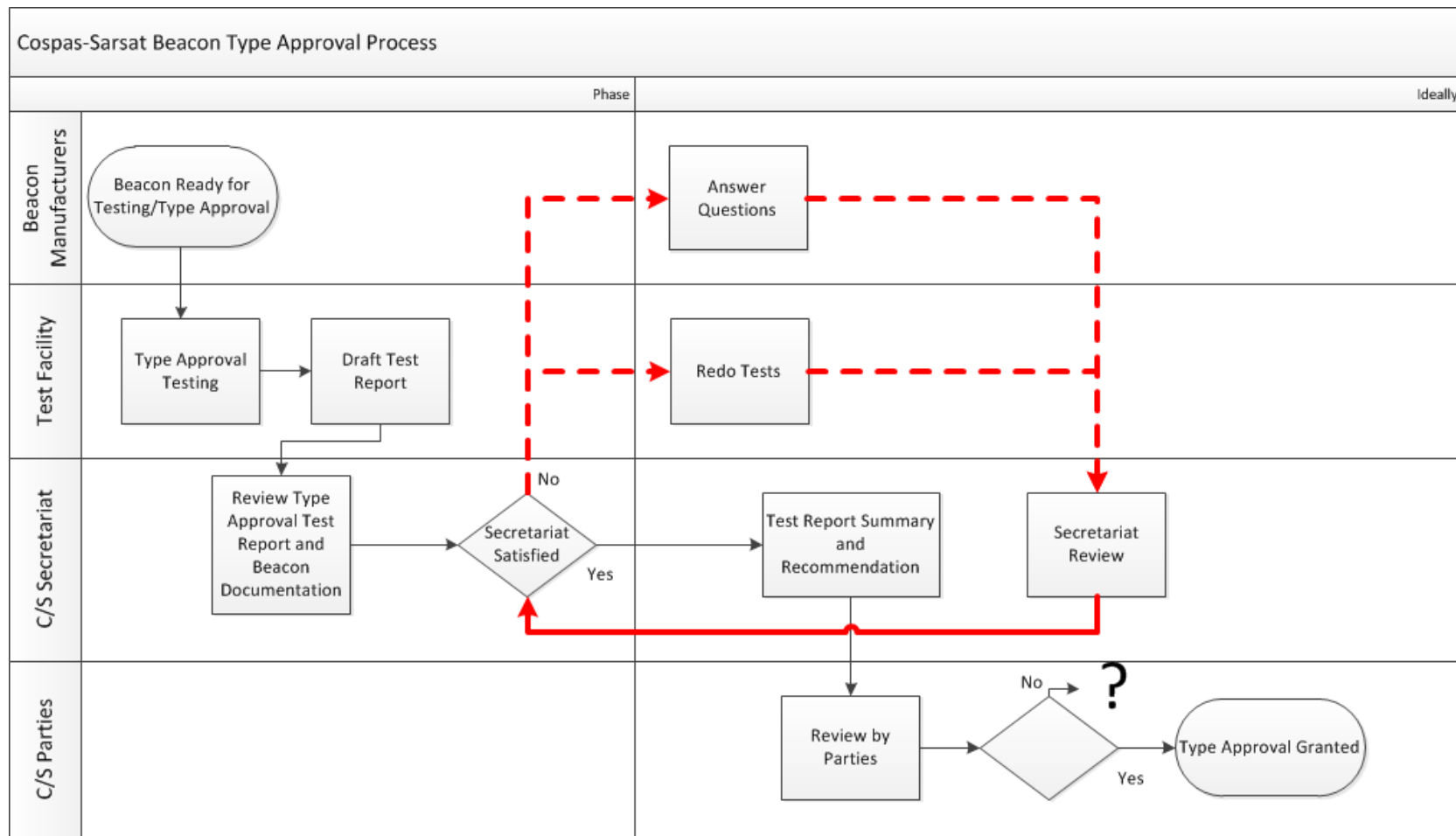
What Actually Happens





Type Approval Process Flowchart

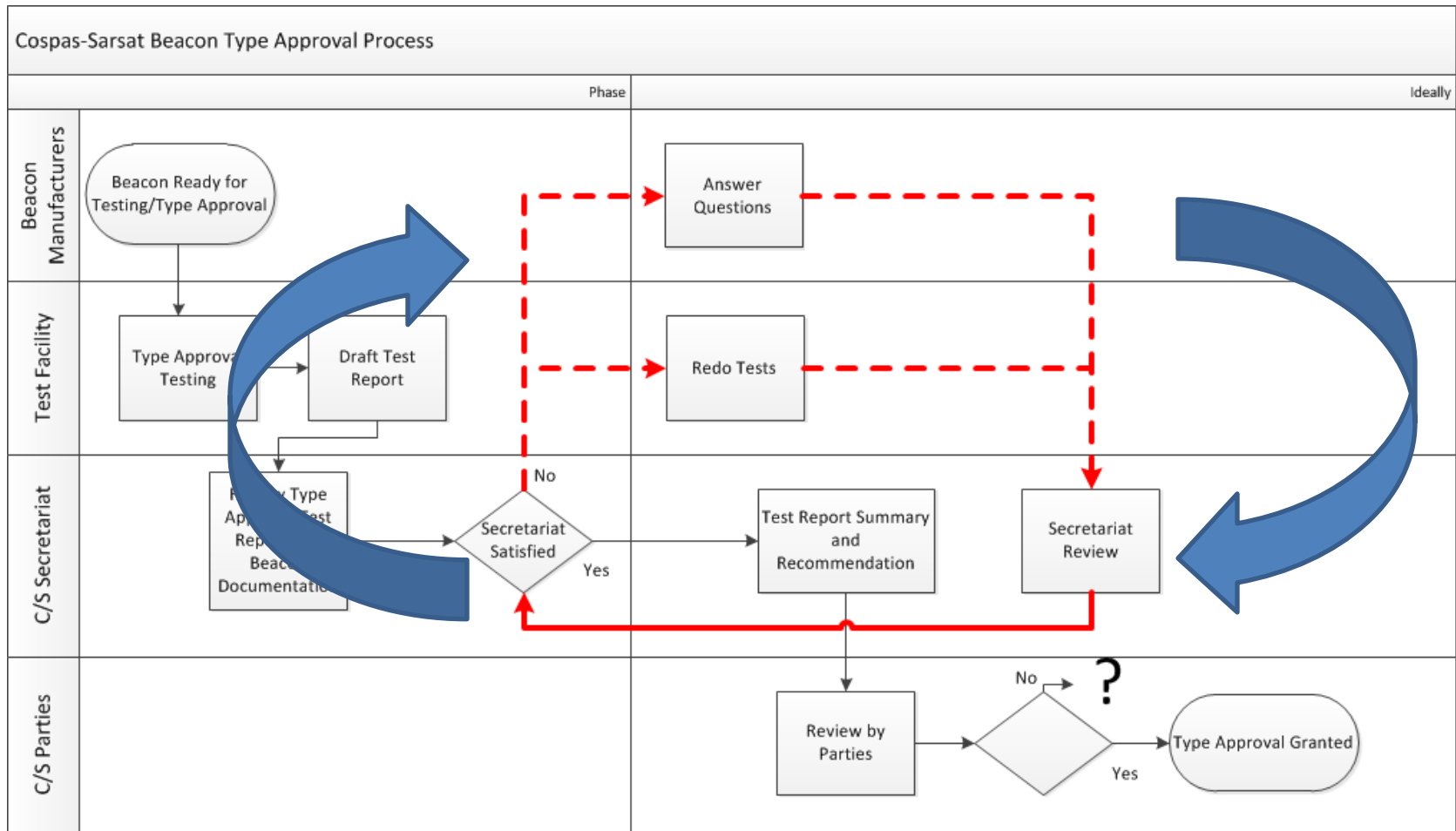
What Actually Happens





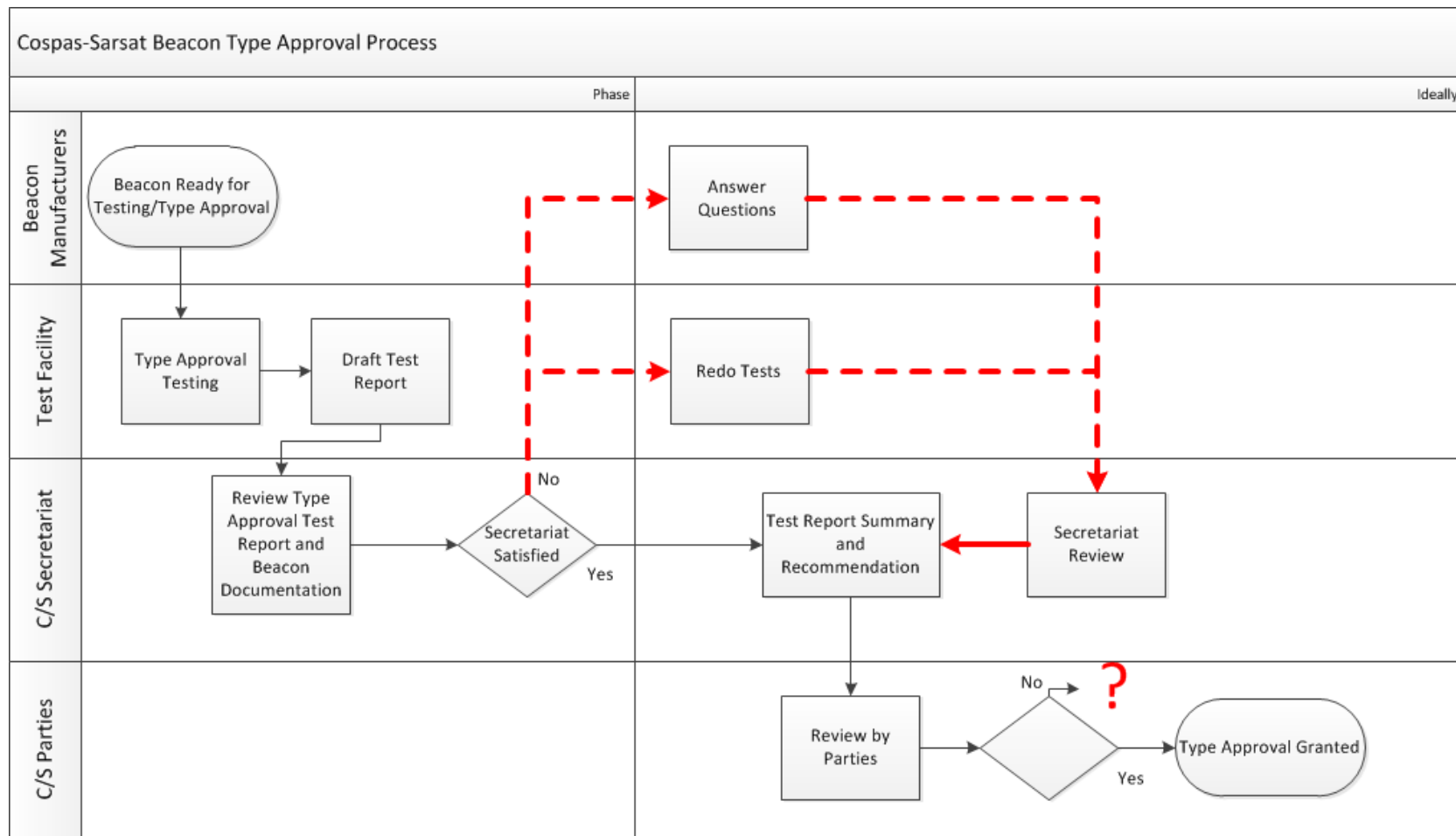
Type Approval Process Flowchart

What Actually Happens





Type Approval Process Flowchart Proposed Change/Clarification





Type Approval Process According to T.007

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Scope of Beacon Testing

- The scope of beacon testing as defined in C/S T.007

2.2. Testing

The Cospas-Sarsat tests described in this document are limited to ensure that:

- a. beacon signals are compatible with System receiving and processing equipment;
 - b. beacons to be deployed do not degrade nominal System performance;
- and
- c. beacons encoded position data is correct.

These tests will determine if beacons comply with this document, with the "Specification for Cospas-Sarsat 406 MHz Distress Beacons" (C/S T.001), and with the document "Cospas-Sarsat 406 MHz Frequency Management Plan" (C/S T.012).



Disputes / Complaints / Comments

- Right now there is really no defined process on how a beacon manufacturer can file a complaint about the process, Test Facility, Secretariat, or C/S Party.
 - If you have a substantial grievance notify NOAA via official memo.
 - Document the problem in detail
 - Allows us to pursue the issue further
 - If you an issue you'd like assistance on but don't think it rises to the level warranting an official memo, contact us



Disputes / Complaints / Comments

- If you have an issue you'd like assistance on but don't think it rises to the level warranting an official memo, contact NOAA unofficially so we can discuss.
 - We are largely cut off from the Type Approval process until the very end
 - Let us know about issues before they become problems and again we will try to assist when we can



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