

- **CM Concept:**

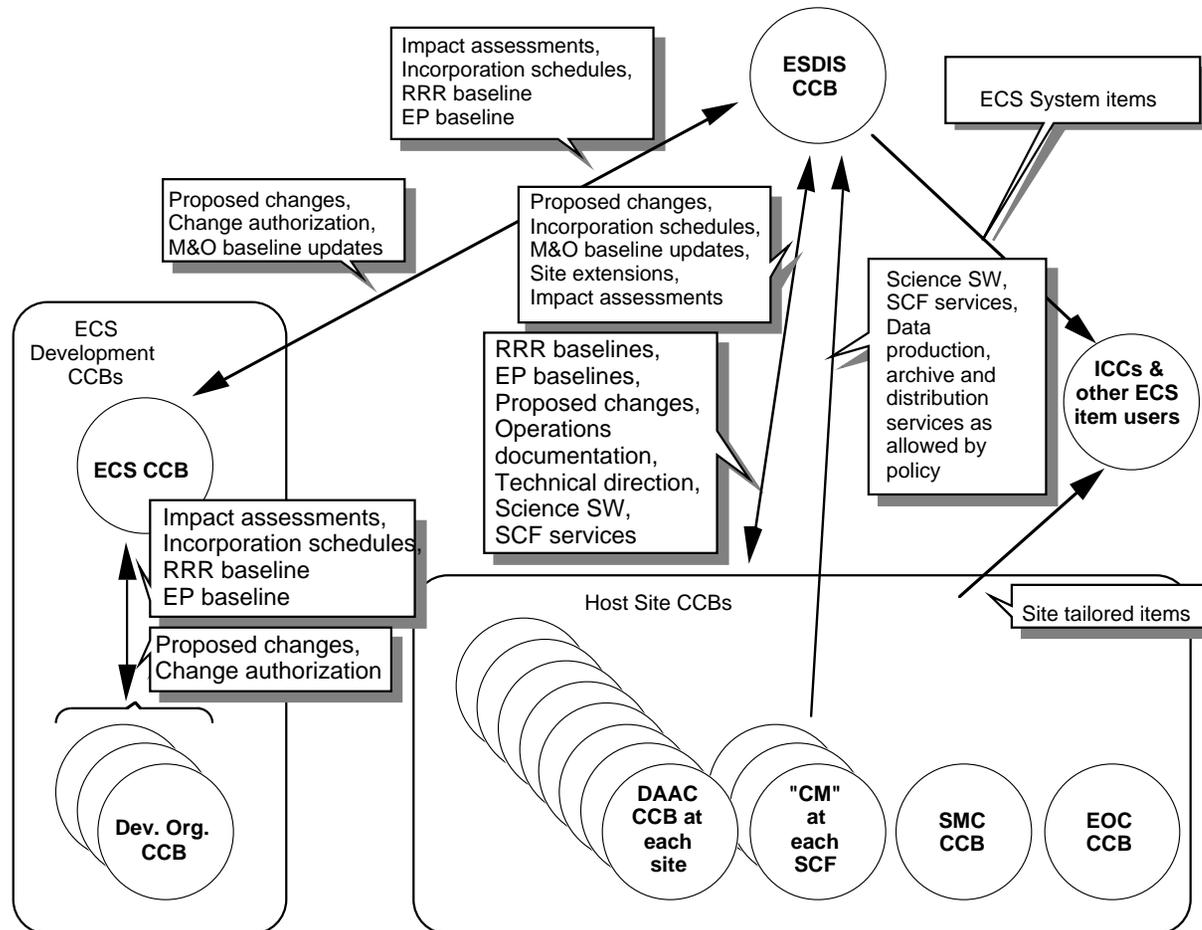
- **ECS operations baselines established at TRMM Infrastructure RRR**
- **Baselines include COTS HW and SW; custom SW, science SW, data base schema, and related ECS documentation**
- **Sustaining engineering office (SEO) reviews, assesses impacts, and provides recommendations to the ESDIS CCB proposed changes to the system-wide ECS operations baseline**
- **Configuration Control Boards (CCBs) established at multiple levels:**
 - » **ESDIS** -- Approves system product baselines, interfaces to external systems, and DAAC extensions to ECS products
 - » **SMC** -- Monitors system operational configurations, controls SMC baseline, and assesses, recommends, and implements (when approved by ESDIS) proposed changes to SMC baseline

- **CM Concept (cont'd):**

- **CCBs cont'd:**

- » **EOC** -- Assesses, recommends, and implements (when approved by ESDIS) changes to the EOC operations baseline
 - » **DAACs** -- Control non-ECS items, site unique items, and site specific modifications to ESDIS-approved ECS products. Approve changes to the local facility. Implement site specific modifications to ECS custom software when approved by ESDIS.
 - » **SCFs** -- Develop enhancements to and maintain science software that is part of the DAAC ECS operations baseline

CCB Structure



- **CM Responsibilities:**

- **ESDIS Management** -- Establishes ECS CM Policies
- **CCBs** -- Classify, prioritize, evaluate, recommend, and approve (within their authority) changes to the ECS operations baselines
- **CM Administrators (at SMC, EOC, DAACs, and SCFs):**
 - » Establish and maintain CM records (incl. HW lists, dwgs, docs)
 - » Facilitate the configuration change request (CCR) process
 - » Monitor and report status of proposed and approved CM actions
 - » Support their respective CCB (as required)
- **Sustaining Engineering Office (SEO)** -- Assesses feasibility and cost, schedule, and performance impacts of proposed system-wide changes. Implements such changes when directed by ESDIS
- **DAAC Sustaining Engineers** -- Assess DAAC impacts of system-wide proposed changes. Develop and maintain ESDIS-approved DAAC-specific modifications to ECS products
- **Maintenance Engr(s).** -- Maintain ECS HW and report configuration changes resulting from maintenance actions

- **CM Tools:**

- **SW CM Manager (Clear Case)** -- Used to record, report, and manage changes to custom ECS SW, science SW, , and data base control files. Used to perform SW builds and compiles, and to distribute ECS custom SW and science SW.
- **Baseline (B/L) Manager** -- Used to record and report the as-built operational baseline of ECS products. Contains the configuration record for each baselined product. Identifies products by CI#, description, location, model/version, and component configured articles. Provides traceability to previous configurations.
- **Change Request Manager** -- Used to record and manage proposed and approved CCRs related to ECS operations baselines

- **CM-related Tools:**

- **ECS Electronic Document Handling Sys. (EDHS)** -- Used to manage documents related to the operational baseline, including requirements, design, and product documents and baselined operations plans and procedures. Baselined ECS documents will be entered into and controlled at sites and at system level using a combination of word processors and the EDHS.
- **Trouble Ticket System (TTS)** -- The TTS is a subsystem of the Fault Mgr. and is used at DAACs, SMC, and EOC to record and report HW and SW faults. Records times, actions taken, and changes made to baselined ECS products that result from maintenance actions (baseline configuration changes must be documented in CCRs and approved by the DAAC/EOC/SMC operations supervisor or CCB).

- **Establishment of the Operations Baseline**

- **Prior to CSR** -- COTS HW and SW is approved for procurement by ESDIS CCB and is installed at sites
- **At CSR** -- ESDIS CCB approves product baseline and the integration of custom and COTS SW
- **Prior to RRR** -- Independent acceptance test organization (IATO) does the following:
 - » Integrates and tests COTS and custom SW and COTS HW
 - » performs system acceptance tests,
 - » conducts functional and physical configuration audits,
 - » records discrepancies noted during tests and audits as NCRs,
 - » records the as-built configuration into the Baseline Manager
 - » reports acceptance test results to ESDIS CCB
- **At RRR** --
 - » ESDIS CCB approves establishment of the operations baselines
 - » DAACs, SMC, and EOC assume control of the operations baselines