Testing Strategy

1. Unit Testing
   a. Goal: Programmers verify that the section of code they changed works as intended.

2. Systems Integration Testing
   a. Goal 1: BA/Tester verifies that the test case(s) they designed during the requirements phase work as intended.
   b. Goal 2: User verifies that the change is what they intended.
   c. Goal 3: BA/Tester runs through a limited set of regression tests with an emphasis on the module(s) that were changed.

3. Systems Testing (preparation for release)
   a. Goal 1: Combine all code changes slated for the next release (SCRs, WRs, CFMs).
   b. Goal 2: BA/Testers verify the system as a whole functions as intended, via a series of regression tests, with particular emphasis on the changed module(s).
   c. Goal 3: Rudimentary load/performance testing is done.

4. Regression (UAT)
   a. Goal 1: Users verify that the system as a whole operates as intended with the new changes.
   b. Goal 2: A battery of standard regression tests are performed, including the specific test cases drawn up for each change being implemented.
   c. Goal 3: BAs perform user training and document the new operation.

Testing Strategy for Enhancement 6 and Transition

**Applies only to the 3 new test environments on the 6900.

Phase 1: Applications Functionality

Description: No new code or development done. A Phase 1 test plan will be written and submitted to the Bureau, and specific results/output agreed upon ahead of time. The Bureau will provide ACS various data files for input and testing. This will be primarily an internal function within ACS, with reporting to the Bureau at a couple of check points and at the conclusion; i.e., no Bureau users are actively involved in this phase of testing.

Goals:

a. Verify the test environments are functionally working and stable.

b. Verify that running test cases, jobs, etc., and exercising the system gives expected results and does not cause abends or other system problems.

c. Verify a process for keeping the test environments in synch with production executables (rudimentary version control).

d. Verify that ACS has gathered the required knowledge and expertise to setup and configure the test environments correctly.

e. Verify that ACS has gathered the operational knowledge necessary to formulate meaningful test cases (RAD occurring simultaneously).

f. Create a test case library of regression tests that exercise various portions of interChange code.

g. Determine "end points" of the testing environments.

Phase 2: Operational Readiness

Description: ACS must perform tasks similar to those done in production to prove to the Bureau that they are ready for system takeover. A Phase 2 test plan will be written and submitted to the Bureau, and specific tasks and results agreed upon ahead of time. The Bureau will receive test results at intervals documented in the test plan. The extent of the Bureau's involvement will be documented in the test plan.

Goals:

a. ACS will be assigned one SCR (# 7447?). ACS will complete the full software development lifecycle on this SCR, including requirements gathering, writing test cases, programming (code changes), testing, and documentation. ACS will promote the code from the test development environment into one of the 3 test environments. Bureau users will verify the output/results meet the stated requirements.

b. ACS will run input files that were run in production and be expected to obtain output similar to production.

c. ACS will run daily, weekly, and monthly jobs, similar to production and be expected to obtain output similar to production.

d. ACS will run regression test cases and show that the desired output/results are obtained.

e. Optional (TBD): One environment may be used by another on-going software enhancement, such as Claim Check, Dashboard, or COTS Documentation, as needed, but this is not part of operational readiness. Rather, it is part of that on-going enhancement (#2, 4 or 5).