

Rebuilding Runs Requested for Species Currently Managed Under Rebuilding Plans July 12, 2005

During recent weeks, there has been considerable dialogue regarding the most appropriate measures for evaluating the adequacy of rebuilding progress for species that are currently managed under rebuilding plans. A conference call was held last Friday (including participants from the NW Center, NW Region, Council staff, and the SSC) to discuss the uncertainties that have emerged since the June Council meeting. Following that call, an effort was made to identify a set of rebuilding runs which would allow authors to complete the analytical work that may be required by the Council (and advisors) and NMFS to evaluate rebuilding adequacy later this year. These runs are described in the table below. We are hopeful that there will be no need for any additional runs by authors who complete these six. Authors should be sure to address A) - C) below before proceeding to D).

- A. Convert the current F to an SPR (this can be achieved straightforwardly given the biological parameters – reported in the rebuilding analysis).
- B. Define how B_0 is to be calculated for the current rebuilding analysis (from the assessment; based on average recruitment over the early years, etc.)
- C. Define how future recruitment is to be generated.
- D. Do the following analyses. Report, T_{MIN} , T_{MAX} , T_{TARGET} , SPR/ F , Probability of recovery by T_{MAX} , probability of recovery by T_{TARGET} .

For runs #1 and 2, the existing T_{TARGET} should be substituted for T_{MAX} in Puntalyzer setup. Run #1 will provide the likelihood of achieving T_{TARGET} with the current SPR, which can then be compared to the 50% likelihood estimated originally. Run #2 provides the SPR that restores a 50% likelihood of rebuilding by T_{TARGET} . Similarly, run #3 estimates the likelihood of rebuilding by the existing T_{MAX} with the current SPR, and run #4 estimates the SPR that would be required to restore a P_0 likelihood of rebuilding in T_{MAX} . Runs #5 and 6 provide comparable outputs relative to the “new” T_{MAX} , as calculated using outputs from 2005 assessments.

Run #	Prob (recovery)	By	Based on
#1 (default)	Estimated	Current T_{TARGET}	Current SPR
#2 (T_{TARGET} with 50% prob)	0.5	Current T_{TARGET}	Estimated SPR
#3 (#1 based on T_{MAX})	Estimated	Current T_{MAX}	Current SPR
#4 (#2 based on T_{MAX})	P_0	Current T_{MAX}	Estimated SPR
#5 (#3 with re-estimated T_{MAX})	Estimated	T_{MAX} (re-estimated)	Current SPR
#6 (#4 with re-estimated T_{MAX})	P_0	T_{MAX} (re-estimated)	Estimated SPR