

*b) Advise on whether or not an exceptional circumstance is occurring.*

Scientific Council responded:

According to the indicator based on surveys, exceptional circumstances are presently occurring, however, having a survey observation above the simulated distributions does not constitute a conservation concern. Due to the unavailability of STACFIS catch estimates in 2011 and 2012, SC is unable to determine whether recent catches constitute an exceptional circumstance.

The “primary indicators” used to determine if exceptional circumstances are occurring are catch and surveys. The observed values are compared to the simulated distributions from both SCAA-based operating models and XSA-based operating models. If the observed values are outside of the 90% confidence interval (i.e. outside 5<sup>th</sup>-95<sup>th</sup> percentiles) from the simulations presented to WGMSE during September 2010, then SC shall advise FC that exceptional circumstances are occurring.

STACFIS catch estimates for 2011 and 2012 are not available. Therefore, SC cannot compare observed catches to the simulated distributions, and is unable to determine if exceptional circumstances are occurring in respect to this indicator. SC notes the management strategy for Greenland halibut assumed that the simulated catches would exactly equal the TACs generated from the HCR. The 90% confidence intervals for the simulated 2012 catches range from 15794 to 18100 t in the XSA based OMs and in SCAA based OMs, from 16323 to 16323 t. The STATLANT 21 catches for 2012 were 15198 t, against a TAC of 15510 t.

For the three surveys that comprise the input data to the HCR, the 2012 observed values were compared with composite distributions of simulated surveys for both SCAA-based and XSA-based operating models. Out of the six comparisons possible (three surveys; two sets of operating models), there was one case (Canadian Fall 2J3K) for which the observed survey index exceeded the 95<sup>th</sup> percentile.

FC adopted the HCR for an initial four year period, noting it would “review the progress of this management strategy in four years with advice from the Scientific Council”. The review of the MSE will necessitate the availability of appropriate technical expertise within SC to carry out the work.

Accordingly, the specifics of the management strategy review should be made explicit. This could be further discussed at the WG-CPRS. A review should assess if the MSE approach adopted in 2010 is allowing the stock to reach the defined management objectives. This review could range from continued monitoring of the primary and secondary indicators (biological parameters, recruitment, fishing mortality, exploitable biomass), or consideration of additional HCRs based upon the current set of operating models, through to conducting a full MSE process with new operating models, HCRs and performance statistics. At present, unavailability of catch estimates would not allow all operating models used in the previous MSE to be reconstituted. Any changes in management objectives or performance statistics need to be provided by Fisheries Commission well ahead of this review.