Following annual review at the June 2017 meeting, the Council expressed a desire to streamline its annual review process. A Research Priorities Working Group met in early March 2018 and produced a proposal on how best to improve the process. Under the new process, the Council's Plan Teams will continue to review and update, as needed, the priority designation and research status for all listed research items, as well as the potential addition/elimination of research items. Following that step, items in the "Critical" and "Strategic" categories will be set aside. Items in the "Urgent" and "Important" categories will then be reviewed by the Plan Teams with the goal of identifying a small number of projects (3-5 per Plan Team) that the Teams consider to be most deserving of SSC/Council attention.

At the June 2018 Council meeting, the SSC will compile a "top ten" list (the number ten is not set in stone) based on Plan Team recommendations, so that the Council review can achieve greater focus and depth. After Council review, the entire list of research priorities, with the top ten highlighted, will be communicated to the usual research/funding entities and the Secretary of Commerce.

At the April 2018 meeting, the SSC and Council endorsed that proposal, with the SSC expressing concern about the impact on projects not highlighted in the "top ten". 2018 will be a trial year for this new process, and the process may be further adjusted based on lessons learned this year.

The tables below reflect Plan Team recommendations for the Council's Top Ten list of research priorities in 2018.

Research ID	Title	JGFPT Priority	Priority Rank	Rationale
146	Improve surveys in untrawlable habitat, particularly for rockfish, Atka mackerel, and sculpins	Important	1	Untrawlable habitat will remain un-survey-able until we get some estimates for use in assessment
163	Conduct routine fish, crab, and oceanographic surveys in the northern Bering Sea and Arctic Ocean	Urgent	1	This is an urgent priority due to the large reductions in abundance in EBS Pacific cod and the sharp increase in abundance in Northern Bering Sea cod. Dynamic ecosystem and environmental changes in the Northern Bering Sea and Arctic are occurring. Assessment and monitoring of the current baseline conditions and trophic interactions is very important.
189	Develop stock-specific ecosystem indicators and incorporate into stock assessments	Urgent	1	Timely given Pcod experience
367	Continue to improve stock assessment methodology with respect to uncertainty	Important	1	Ongoing concern
246	Cooperative research efforts to supplement existing at-sea surveys that provide seasonal, species-specific information on upper trophic levels	Important	2	Timely given Pcod experience
366	Continue to investigate time variation and the shape of fishery and survey selectivity models	Important	2	Time-varying selectivity and the shape of fishery and survey selectivity models can have a very large impact on the assessment of the status of the stock and estimation of biological reference points and rates. Incorrect model configurations increase the uncertainty of ABC and OFL.
381	Effects of changes to the observer program	Urgent	2	Main source for removals and there is a lot of concern regarding new estimates
533	Explore optimal sampling strategies and geospatial approaches for time series of survey data	Important	2	Timely concern for transitioning to incorporating geo-spatial methods into interpretation of survey data
220	Research on survey analysis techniques for species that exhibit patchy distributions	Important	3	Mainly thinking the VAST model estimates and alternative survey index which may be an important advancement for several species
631	Genetics of Northern Bering Sea Pacific cod)	Urgent	3	Only "urgent" ranking for this group

Research ID	Title	CPT Priority	Priority Rank	Rationale
148	**Spatial distribution and movement of crabs relative to environmental variability, life history events, and fishing**	Urgent	1	Environmental conditions are changing rapidly in the eastern Bering Sea, driving related changes in the distribution of commercial crab stocks. Fishing behavior and life history timing (e.g., reproduction, growth) may subsequently be influenced by changes in crab distribution. The CPT discussed collection of data on distribution and movement relative to oceanographic conditions as critical for the development of the complex models needed to predict future stock abundance, stock boundaries, stock production, and management strategies.
232	**Develop management strategy evaluations that incorporate changing climate and economic conditions and impacts to coastal communities**	Urgent	2	Developing Management Strategy Evaluations that incorporate climate projections is critical as crab management becomes more uncertain with environmental change. The subsequent effects of fishery management changes on the economics and social functioning of resource-dependent communities also need to be considered. Predicting the sustainability of crab resources under changing environmental and management scenarios will lead to better-informed harvest strategies.
196	**Genetics, population dynamics, and management implications of hybridization between Tanner and snow crab in the Bering Sea**	Important	3	*Chionoecetes bairdi* and *C. opilio* hybrids represent an unknown portion of *Chionoecetes spp*. biomass in the eastern Bering Sea. Current identification procedures are not consistent among fisheries and surveys, and available genetic data suggest a high probability of back crosses being identified as *C. opilio* or *C. bairdi* (as opposed to hybrids). Fishery landings are further complicated by hybrid designations and may incorrectly inform the OFL and TAC setting processes.
592	**Maturity estimates for Bering Sea and Aleutian Island crab stocks**	Urgent	3	The availability of maturity data from male and female crab are incomplete for use in stock assessment models. Key parameters defining size at maturity, proportion mature at size, and the potential for biennial reproductive cycles are currently uncertain for many stocks. Methods for determining spatial and temporal variability of these quantities are needed to adequately characterize mature biomass.
174	**Develop spatially-explicit stock assessment models**	Important	4	Spatially-explicit stock assessment models are currently not used for management of commercial crab fisheries in the eastern Bering Sea. However, there is likely spatial variability in life history parameters, often correlated with environmental (i.e. temperature) conditions, for *Chionoecetes spp*. Spatially explicit models would also account for spatial trends in catch data and in stock boundaries.

Research ID	Title	SPT Priority	Rank	Rationale
571	**Age validation for scallop shells**	Important	1	Easy, do-able, needed for age-structured assessment, If Quinn thinks there's a possibility that he has time to collaborate on a proposal, then this might be achievable.
175	**Develop age-structured models for scallop assessment**	Important	2	Needed for status determination criteria, The SSC recommended applying it to Kayak Island dataset which I believe is the PT's thought also. The Kamishak model performed well with fishery data only and Jie thought it should be applied to other beds like Shelikof to see how it performed
173	**Expand studies to identify stock and management boundaries**	Urgent	3	Addresses conservation concern of presence of "unfished" beds, Mgmt concern of resource availability to support fleet capacity
363	**Area-specific variability in scallop population processes**	Important	4	Needed to characterize potential spatial impacts of fishery, differential productivity, potential for recovery
551	**Estimate scallop survey catchability**	Urgent	5	Explore within assessment, Though this might not be completely achievable without additional field experiments, the analysis of existing data could be done to examine survey dredge consistency.
171	**Acquire basic life history information (e.g., natural mortality, growth, size at maturity) for data-poor stocks**	Important	5	Being explored within age-structured assessment, This seems like it could provide information, in part, to RP 173, 363, and 553, Growth has been examined and regional differences observed (Spafard and Rosenkranz, 2014). Maybe additional analysis could be done? Size and age at maturity can be examined with existing data.