Canada/United States (U.S.) Transboundary Resources Steering Committee
Four Points Sheraton Halifax, Halifax, N.S, Canada
September 11-12, 2019
Meeting Minutes

Canadian Participants:
Doug Wentzell (alternate for Mary-Ellen Valkenier), Fisheries and Oceans Canada (DFO), Steering Committee Co-chair
Annette Daley, DFO, Regional Director of Fisheries Management
Melanie Barrett (alternate for Kirsten Clark), DFO, Transboundary Resource Assessment Committee (TRAC) Co-chair
Kathryn Cooper-MacDonald, DFO, Fisheries Management
Donald Humphrey, DFO, Species at Risk Working Group (SAR WG) Co-chair
Alain d'Entremont, Transboundary Management Guidance Committee (TMGC) Industry Co-chair
Ray Belliveau, Gulf of Maine Advisory Committee (GOMAC) Industry Co-chair
Roger Stirling, GOMAC Industry Co-chair (via teleconference)
Terry Higgins, DFO, Integration Committee
Jenna Gabriel, DFO, Integration Committee

U.S. Participants:
Michael Pentony, National Marine Fisheries Service (NMFS) Greater Atlantic Regional Fisheries Office (GARFO), Steering Committee Co-chair
Pete Christopher, GARFO Acting Assistant Regional Administrator
Tom Nies, New England Fishery Management Council (NEFMC), Executive Director
Tara Trinko-Lake, NMFS Northeast Fisheries Science Center (NEFSC), TRAC Co-chair
Mike Simpkins, NMFS NEFSC, TRAC
Terry Stockwell, NEFMC Vice-chairman, TMGC Co-chair
Jean Higgins, NMFS, SAR WG Co-chair
Marianne Ferguson, NMFS GARFO, Integration Committee Co-Chair
Spencer Talmage, NMFS GARFO, Integration Committee

Opening Remarks

Mr. Doug Wentzell, attending as Acting Regional Director General, DFO Maritimes Region for Ms. Mary-Ellen Valkenier, thanked the meeting organizers and the TMGC members for the work done leading up to this meeting. He also thanked Kirsten Clark, in her absence, for her continued work as the TRAC Co-chair.

Mr. Wentzell also led a moment of silence to recognize the anniversary of the 9/11 tragedy.

Mr. Michael Pentony also thanked the meeting organizers and the TMGC members for their work as well as DFO Maritimes for hosting.

Mr. Pentony indicated that the work being done to put North Atlantic right whales (NARW) on the road to recovery will be continued through bilateral collaboration between Canada and the U.S. to determine the path forward.

Mr. Pentony spoke of work being done at three active sites for wind energy development that are in various stages of environmental review, with another ten or fifteen more sites on the horizon slated for the same environmental review down the East Coast. He noted that NOAA is working with other agencies such as the U.S. Coast Guard, the Bureau of Ocean and Energy Management, and the Environmental Protection Agency through the National Environmental Policy Act Process. The biggest challenge with this work from a fisheries perspective is the potential impact on ocean habitat, as any individual project may not have significant impact, but the accumulative impacts could be potentially significant.

Mr. Pentony concluded his remarks with an update on the mackerel fishery. The Mid-Atlantic Fishery Management Council recently adopted a five year rebuilding program for the stock, which was based on the 2017 U.S. stock assessment. The proposed rule to implement the rebuilding program was published in June 2019 and a final decision is expected soon. Mr. Pentony explained that based on the 2019 Canadian assessment of mackerel, the U.S. decided to hold firm on a 2020 quota of 17,371 tons (identical to the 2019 quota). The fishery did not utilize its full 2019 quota due to bycatch limits being reached for river herring and shad. This strategy will also help mackerel rebuilding.

2019 Transboundary Resource Assessment Committee (TRAC) Results

Cod Assessment

Ms. Melanie Barrett explained that last year the three approaches that were being used to provide catch advice were rejected by TRAC. As such, new Terms of Reference (ToR) were designed to determine how to provide advice without using the rejected models, and instead using biological indicators of cod from 2018-19 data. Two different approaches were outlined in the ToR. The first was to update biological and fishery indicators of cod with 2018-19 data, which would provide information that could be used to revisit the 2018 catch advice. The second approach was to develop an interim method to providing catch advice. With no major changes in the biological and fishery indicators for the stock, biological and fishery indicators will be monitored and the new methodology will be explored. As no model was run for cod at TRAC 2019 and no catch advice was provided, the 2018 catch advice remains in place at 602 metric tons (mt) to 676 mt (based on the mean of all three approaches at low risk – 602 mt, and neutral risk – 676 mt).

TRAC, in collaboration with TMGC, reviewed two alternative methods to predict catch advice for next year: a simulation framework (Data-Limited Methods Toolkit, DLMtool), and an ensemble of models (Rose Approach). The decision was made to continue exploring the DLMtool.

Ms. Barrett outlined the 2018 combined Canada and U.S. landings and discards, and fishery age composition by number and weight:

- By number, the 2013 year class was the highest at age five (37%) and the 2014 year class at age four (29%).
- By weight, the 2013 year class also dominated the 2018 fishery (45%), followed by the 2014 year class (27%).

The contribution of fish aged seven and older continue to be low in recent years (e.g. in 2018, fish aged seven and older accounted for approximately 5% of the fish caught in the fishery).

For 2020, using the DLMtool to simulate the fishery and assess different harvest strategies might be the preferred method to inform the best strategy for the time period. However, a new model cannot be introduced until a benchmark is reached.

Haddock

TRAC rejected the assessment model for Eastern Georges Bank (EGB) haddock in 2019. As a result, there was no analytical model to provide projections and to characterize risk for catches in 2020 and 2021. The fishery, biological information, survey, and relative fishing mortality trends were summarized to provide an indication of stock status. The population is still well above the survey time series average and the exceptionally large 2013 year class is still the major component of the fishery. However, as this very large year class ages and declines in number, the stock biomass is expected to decline, even in the absence of fishing. In order to provide more guidance, a comparison was made with the 2003 year class in 2009 (which is akin to the 2013 year class in 2019). Results from an earlier model run in 2012, which did not exhibit the same issues as the 2019 model run, were summarized along with the biomass estimates, catches and quota for 2009 to 2011 (akin to 2019 to 2021). Based on this information, TRAC recommended no increase in quota in 2020 above the 2019 quota of 30,000 mt, and recommended a decrease in quota in 2021.

Mr. Wentzell inquired as to whether the next benchmark is predicted to align with the U.S. Research Track in 2021. Ms. Barrett noted that this is a possibility and that DFO Science and NEFSC Science staff are working to determine how they might align from a management perspective. The TRAC review process is different from the U.S. domestic process and the stock is also different (the U.S. assesses the whole of Georges Bank haddock as a single management unit, where TRAC assesses only the Eastern portion), so there are process issues to discuss.

Yellowtail Flounder

Ms. Tara Trinko-Lake provided the presentation on yellowtail flounder. The combined Canada and U.S. catches in 2018 were 45 mt against a quota of 300 mt quota (Canada's catch was 3 mt of their 87 mt quota, and the U.S. catch was 42 mt of their 213 mt). She also explained that the 2018 catch was approximately 33% discards and 66% landings. This stock continues to exhibit low productivity with all three research vessel surveys showing low recruitment. Biomass remains at an historically low level. Recent catch is low relative to the biomass, but total mortality from all sources remains high, indicating that fishing does not appear to be a major driver of this stock.

Ms. Trinko-Lake explained that the 2014 benchmark empirical approach was applied to generate catch advice. Based on this approach and similar to previous years, TRAC recommended an upper bound for the exploitation rate of 6% for catch advice, which results in advice of an upper bound of 199 mt for 2020. Survey biomass decreased 95% from 2010 to 2019. The low exploitation was recommended to allow for the possibility of rebuilding.

Mr. Wentzell noted that last year there was a 'dip' in the survey results which seems to have balanced out again this year. Ms. Annette Daley explained that this may have been a result of a low sample size for the last survey. Mr. Alain d'Entremont added that due to unexpected circumstances, survey tows were conducted outside of yellowtail habitat. Both of those factors were not repeated this year, allowing for a more representative survey, likely contributing to the balancing of this year's survey results.

Allocation shares

Ms. Barrett explained that the resource distributions are reviewed annually based on the previous year's survey results. The historical utilization (established 1967-1994) does not change, but resource distribution shares are reviewed annually. Allocation shares are based on a formula that incorporates both historical utilization of the fishery and the survey distribution of the resource from the most recent fishing year to achieve similar ratios of catch to biomass in both Canada and the U.S. The distribution is a calculated proportion of where the stock is located based on the Hague Line and a smoother is applied to reduce annual fluctuations in the surveys. Since 2010, the same weight distribution has been used (90% for resource distribution and 10% historical utilization). For 2020 resource distribution compared to 2019, there was no change to cod, haddock slightly increased for the U.S. and slightly decreased for Canada, and yellowtail flounder slightly decreased for both the U.S. and Canada.

TRAC 2020 Terms of Reference and Future Meeting Schedule

The 2020 TRAC meeting will take place July 7-9, 2020 in Woods Hole, MA.

In the absence of modeling approaches for cod and haddock, the assessment teams have been tasked with summarizing fishery, survey, and biological information, and identifying and commenting on any changes that would impact the advice. The leads for the cod assessment will be tasked with updating TRAC on the development of the DLMtool assessment approach. Haddock leads will also be expected to update TRAC on their work towards the next benchmark.

For yellowtail flounder, the assessment team is tasked to apply the empirical benchmark assessment, updated with the latest data. Catch advice would be provided based on the empirical approach for a range of exploitation rates for 2020.

The U.S. has a domestic benchmark process (a "Research Track") for the next five years focusing on haddock in 2021, cod in 2023 and yellowtail flounder in 2024. Discussions are underway between DFO Science and NEFSC about how TRAC benchmarks might coordinate with the U.S. process and the results of these discussions will be presented at the 2020 TRAC.

Mr. Wentzell also noted that DFO Science is working on making a decision regarding a Canadian TRAC Co-chair, following the retirement of Ms. Kirsten Clark.

Transboundary Management Guidance Committee (TMGC) Report

On September 10-11, 2019, TMGC met in Halifax to negotiate shared Total Allowable Catch (TAC) recommendations between Canada and the U.S., based on advice from TRAC. The U.S. TMGC Co-chair, Mr. Terry Stockwell, began by summarizing the TMGC meeting and thanking all involved for the hard work that went into the meeting. He also commented that the distribution of electronic briefing materials prior to this meeting was appreciated.

Yellowtail Flounder

Mr. Stockwell provided the yellowtail flounder presentation. He explained that the U.S. Georges Bank scallop fishery is an economically important fishery which has an unavoidable bycatch of yellowtail flounder and that the U.S. had requested that TMGC consider the needs of this fishery when setting quota advice. Yellowtail flounder bycatch is expected to increase as a result of new access to U.S. scallop fishing areas that had previously been closed. Canadian yellowtail flounder catches were 3 mt in 2018 from a Canadian quota of 87 mt. The 5Z yellowtail flounder rebuilding plan indicates that under current conditions of high natural mortality, it is not possible to set timelines for rebuilding. Canadian catches have been in line with previous TRAC recommendations and, under the rebuilding plan, Canada will continue to maintain catches at a level consistent with science advice.

For 2019, a TAC of 162 mt was negotiated, of which Canada would be allocated 26% or 42 mt, and the U.S. would be allocated 74% or 120 mt. This represents a small increase from 140 mt in 2019, and corresponds with roughly a 5% exploitation rate, which is within TRAC's recommended upper bound of 199 mt, which corresponds with a 6% exploitation rate. Mr. Stockwell explained that TMGC sought to balance stock conditions and utilization of other species, that the declining trend of the stock remains, and that total mortality remains high despite record low catches. He also advised that current levels of catch are not a primary factor affecting stock rebuilding.

TMGC and TRAC will continue to explore the most appropriate method to provide catch advice for this stock in its current state of productivity. Although current levels of catch are not the primary driver of the stock, TMGC noted that it is important to monitor for changes in productivity to indicate that further reductions in catch could have a higher probability of future rebuilding.

Mr. Pete Christopher addressed the concern raised by Mr. Pentony, that the utilization by the scallop fleet will likely increase in 2020 compared to 2017 (the last year scallop vessels were allowed into Closed Area II). This increase was not expected to be an issue. The TAC that was negotiated by TMGC accounted for the expected increase in utilization. Additionally, it is expected that accountability measures for gear modification will reduce bycatch of yellowtail flounder by scallop vessels. Mr. Tom Nies further added that although the New England Fishery Management Council's Scallop Plan Development Team is expecting an increase, they do not

anticipate that it will be substantial. They expect to have the scallop utilization estimates refined by December 2019.

Cod

The Canadian TMGC Co-chair, Mr. d'Entremont, provided the cod presentation. He noted that the EGB cod and Georges Bank yellowtail flounder stocks have been at historically low levels over the past decade. Canadian rebuilding plans for these stocks were developed in consultation with GOMAC and implemented in June 2019.

The negotiated shared TAC levels were 650 mt for Atlantic cod, of which Canada is allocated 71% (461.5 mt), and the U.S. is allocated 29% (188.5 mt). Mr. d'Entremont explained that the TRAC had reviewed fishery and biological indicators and provided no new catch advice for cod in 2020. TRAC, therefore, had no reason to change catch advice from what had been provided for 2019 (602-676 mt). The 2020 TAC is status quo from 2019, consistent with the TRAC catch advice for 2019. TMGC sought to balance the utilization of other species and signals of the survey indices and advised that the status of stock remains poor.

A special consideration for cod is the proposal regarding the DLMtool, which is an approach for providing catch advice that will be pursued by the assessment team. TMGC has developed a timeline which involves iterative collaboration between a TMGC working group and TRAC to develop management objectives and procedures. The development of this approach will take a couple of years, with the goal of completion to TRAC in 2021. In the meantime, TRAC will review the data and determine if there is a need to modify the catch advice.

Mr. d'Entremont explained that this process will begin by identifying the TMGC members to develop management objectives, while TRAC develops operating models in fall 2019, and then a review by the full TMGC in winter 2020. The total timeline for the proposed work is two years, with no new TRAC advice provided during the two year period, as time will be better used working on the new tool.

Mr. Pentony inquired whether the DLMtool approach is expected to be ready for decision-making to inform the TRAC process in 2021. It was noted that this is unclear until more work is underway, but that there was some discussion by TRAC about potential use of the DLMtool at the 2023 benchmark. Mr. d'Entremont explained that although the tool requires considerable work for the initial set-up, it will then require minimal maintenance to continue supporting future decision-making.

Haddock

For EGB haddock, catches have typically been below the TAC for recent years, because participation in the fishery by U.S. industry and Canadian fixed gear fleets has been low. In 2018, Canadian catch was 12,000 mt of the 20,500 mt Canadian quota.

For 2019, a TAC of 30,000 mt was negotiated, of which Canada would be allocated 46% (13,800 mt), and the U.S would be allocated 54% (16,200 mt). As there was no analytically-based catch advice due to the failed model, TRAC provided catch advice based on fisheries and biological

indicators and an evaluation of the 2003 year class, which is similar to the 2013 year class. The 2020 TAC is status quo from the 2019 quota and is consistent with the TRAC advice to not increase the quota in 2020. TMGC accounted for the expected decline of the 2013 year class while still acknowledging that biomass remains high.

TMGC reaffirmed their request that TRAC commits to doing a benchmark assessment, and focus efforts on getting the resources in place to work with U.S. Science to develop a new model.

Mr. Mike Simpkins indicated that the benchmark is on the schedule for 2021, and that the U.S. is currently having discussions with DFO Science regarding how to best meet collective goals, hopefully at the same time. TMGC will provide an update on this at the spring 2020 Steering Committee meeting.

When asked whether catch limits were reached last year, Mr. d'Entremont noted that although catch limits were not reached last season, 2019 catches are already well ahead of last year's catches. In 2017, the total catch was 8,100 mt, in 2018 it was just over 6,000 mt, and by August 2019 the catch was already at 9,200 mt. He also noted that industry was excited to see signs of the 2016 year class already which, although not the exceptional 2013 size, is certainly notable and comparable to other large year classes.

Other

Mr. Nies noted that the three existing analytic assessments have all been rejected in the same year, and three different processes for bridging this gap were established with no proposed solution to date. He also noted that without a two year quota marker, it will be difficult to evaluate the incoming year class, highlighting the importance of a 2021 benchmark. Ideally, TRAC will be able to return to an analytical tool, by starting with one stock and if the tool works, moving on to another stock. Mr. d'Entremont supported this point, noting that the outcome of this year's fishing seasons will contribute to better understanding for the future as well. He further noted the importance of having reliable survey vessels to ensure our analytics are in place, especially if 2016 is a good year class. Ms. Daley agreed that having three different approaches poses difficulties, and suggested that DFO update the expected impacts and reliability of the new analysis approaches accordingly.

In the absence of analytical models for the stocks at this year's TRAC, the Co-chairs had suggested that assessment leads only provide TRAC Status Reports (TSRs), rather than producing both working papers and TSRs in 2020. It was recognized that the TSRs would likely be slightly longer than the existing documents in order to provide sufficient information for both scientific review and for provision of management advice to TMGC. The advantage would be a single document that could be published quickly. TRAC and TMGC participants were invited to review this year's working papers and the draft TSRs that were supplied by TRAC, as well as the 2020 TRAC Terms of Reference for cod, haddock and yellowtail, in order to identify and recommend information, tables and figures that are essential to include in a modified TSR. TRAC and TMGC are to provide these recommendations to their respective Co-chairs by the winter 2020 TRAC intercessional, where the information will then be summarized and discussed.

Mr. Stockwell noted that there is a TMGC intersessional scheduled for February 2020, to update on development of operating models and management objectives, seek approval of management objectives, and define expected documents from TRAC 2020.

Mr. Nies stressed the importance of researching the cause of the unpredictability of the yellowtail flounder stock, and applying a concentrated effort to understanding the existing conditions of Georges Bank. He suggested that the time and effort put into managing low quotas could be better placed by analyzing the stock itself. Mr. d'Entremont offered examples of potential work that may inform the process in the future, including studies by TRAC about potential influences for increased mortality (for all stocks, but with specific focus on cod). He also noted that industry is interested in further studies on the impact of seal predation. Mr. Nies noted that the U.S. scallop industry has also funded some studies on the impacts of a disease that appears to affect yellowtail flounder, which is suspected to be leading to higher mortality for the stock. Mr. Simpkins further noted that the U.S. is planning research on yellowtail flounder for the 2024 research TRAC assessment, and suggested it is time to begin forming working groups for this research strategy.

Ms. Daley noted that exploring our understanding of environmental factors with the Species at Risk rebuilding plans will provide an opportunity to apply this understanding in relation to stock assessments. Ms. Cooper-MacDonald offered an example of this from the latest TRAC meeting, where there was discussion about the potential benefit of a spatial approach for reviewing the yellowtail stock rather than just reviewing quotas. She suggested that this focus on spatial management might be applicable for all three stocks as well. Mr. d'Entremont suggested this might tie together other potential factors of stock status, specifically in relation to the impact of seal predation on yellowtail flounder mortality (which was identified as a significant factor in the latest stock assessment).

Mr. Wentzell closed the day by recognizing some of the practical aspects of ensuring a more coordinated approach to stock management and keeping focus on the question of mortality causes.

Species at Risk Working Group (SAR WG) Update

The Canadian SAR WG Co-chair, Mr. Donald Humphrey, provided a brief presentation on the objectives of the SAR WG. He noted that the working group was initially established in 2003 to serve as an informal forum to identify opportunities and develop proposals to jointly address common concerns related to aquatic species at risk. The initial work plan for the working group included investigating similarities and differences in respective legislation, investigating the potential of coordinated science assessments, and developing a revised terms of reference. Mr. Humphrey noted that the terms of reference for the SAR WG had not been updated since 2006. In light of this and various organizational changes, the SAR WG Co-chairs proposed amending the Terms of Reference for the SAR WG, and developing a work plan for the next five years, to better define the purpose and activities of the working group.

Ms. Daley indicated her support of this, and noted that the five-year work plan would be a good resource for guiding Canada-U.S. collaborations on issues such as data collection and information sharing in support of the U.S. *Marine Mammal Protection Act* requirements.

The Steering Committee Co-chairs approved the proposal for a review of the SAR WG ToR, and asked that the redrafted ToR and multi-year work plan be presented to the Steering Committee at the spring 2020 Steering Committee meeting.

Canadian Species at Risk Update

Mr. Humphrey presented Canadian updates for SAR including: recently completed listing consultations (for white hake and winter skate), upcoming *Species at Risk Act* (*SARA*) listing consultations (striped bass and lumpfish both tentatively scheduled for winter 2020), 13 other species under consideration for listing under *SARA*, 2019 COSEWIC re-assessments (for shortfin mako, sei whale, Sowerby's beaked whale, and fin whale), and recovery planning updates (for NARW, loggerhead sea turtle, leatherback sea turtle, white shark, and blue whale).

U.S. Species at Risk Update

U.S. SAR WG Co-chair, Ms. Jean Higgins, presented on U.S. updates for SAR. These included NARW updates (i.e. recovery planning, Atlantic Large Whale Take Reduction Team, and updates to Section 7 of the *Endangered Species Act*, *ESA*), and other *ESA* updates, including listed species (Atlantic salmon, Atlantic sturgeon, sei whale, fin whale, green turtle, and leatherback turtle) and listing determinations (alewife and blueback herring).

Ms. Higgins also noted that discussions are continuing on the status of humpback whales, but could not confirm when these discussions will reach a conclusion.

North Atlantic Right Whale Updates

Mr. Pentony stressed that many groups are focused on NARW recovery. He noted that the biological opinion needs to undergo review by the Fishery Management Councils, and that if there is a determination of jeopardy, then NMFS needs to follow up with reasonable and prudent alternatives.

Ms. Daley provided a brief update on fisheries management measures implemented in Canada, in response to the NARW mortalities of 2019. She further explained that more significant updates on the Take Reduction Team are provided during recurring bi-lateral meetings between Canada and the U.S., and that the next meeting will provide opportunity for updates on NARWs, as the first death occurred just before the latest meeting. She also noted that DFO collaborates closely with National Oceanic and Atmospheric Administration (NOAA) on these issues. Ms. Daley remarked that mitigation measures from 2018 were quite successful with no documented mortalities immediately following significant mortalities in 2017. However, this year there were more mortalities recorded, with necropsies on a few animals indicating cause to be blunt force trauma (i.e. ship strikes). She also noted that for both the 2019 and 2017 mortality events, the majority of lethal events occurred in June.

In response to this year's events, dynamic closures were increased to include the entire Gulf of St. Lawrence, and dynamic closures elsewhere continued to be an active mitigation measure. DFO surveillance capacity was increased, and Transport Canada also continued measures to control vessel speeds, with an enlarged scope that included vessels as small as 13 feet.

Ms. Daley also reported on efforts to mitigate entanglements, noting that the Canadian lobster industry is cognizant of the U.S. requirements, and a focus has been on measures for the Canadian snow crab sector. She acknowledged that although lobster fisheries haven't been implicated thus far, the sector is also present in the affected areas. In addition to ensuring the lobster sector is taking appropriate measures, Canada will also take action to reduce rope and traps per trawl (similar to the strategies used in the U.S.) in the Bay of Fundy. Mr. d'Entremont noted that gillnet abundance and usage in Canada is very limited compared to the U.S., due to a strong push in the 1990's to reduce use of gillnet (introducing licence conditions either restricting the gear, or mandatory gear tending).

It was noted that Canada's introduction of mandatory reporting on ghost/lost gear, and enforcement (compliance measures for owners of tagged gear that is found and was not reported lost) has already shown a reduction in the amount of ghost gear. Mr. Wentzell added that the Government of Canada announced a $9 million investment towards gear retrieval, and that the DFO Assistant Deputy Minister, Sylvie Lapointe, is keen to ensure that both countries are engaged on gear retrieval strategies.

Ms. Daley also reported that research efforts into better technologies continue to occur in both Canada and the U.S., including a summit on gear technology being hosted by Canada (likely in Halifax) in winter 2020 and NOAA staff may be invited to attend.

Mr. Pentony expressed appreciation for all the work that continues for all species, as well as the targeted work on NARW. Mr. Wentzell agreed that NARW have been a large focus for the Species at Risk office, and noted that the complexity of the issue will require continued engagement from both countries moving forward.

Closing Remarks

Mr. Pentony thanked all for attending and expressed appreciation for all the work that went into preparing for this meeting. He noted that conversations were efficient and remarked that he is confident in decisions that were made throughout the whole collaborative process. He thanked Mr. Wentzell for hosting the U.S. delegation in Halifax this year, and said he looks forward to hosting next year in Boston.

Mr. Wentzell shared his collective confidence in the decisions made during these meetings and highlighted the importance of continued cooperation between Canada and the U.S. on these stocks.

NEXT MEETINGS:

Prior to establishing 2020 meeting dates, there was some discussion regarding the length of the September Steering Committee meetings. It was agreed that TMGC could likely be completed in

a day and a half, and that the Steering Committee could be completed in one full day (instead of two half days). This might require a shift in the Steering Committee agenda by putting the SAR WG and the TRAC presentations in the morning, while TMGC simultaneously finishes their meeting, allowing both groups to come together in the afternoon.

- **Steering Committee Teleconference May 7, 2020 from 9 AM-10 AM EST/10 AM-11 PM AST**
- **TRAC July 7-9, 2019, Woods Hole, MA**
- **TMGC – September 1-2, 2019, Boston, MA**
- **Steering Committee – September 2, 2019, Boston, MA**