INFORMATION FOR TOOTHFISH LICENCE HOLDERS 2017

1. Background

1.1. The South Georgia & the South Sandwich Islands (SGSSI) Maritime Zone is within the area covered by the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), to which the United Kingdom is a contracting party. Accordingly fisheries in the Maritime Zone are managed under the auspices of CCAMLR. It is a condition of every licence that all applicable CCAMLR Conservation Measures (CMs) must be adhered to. The Government of South Georgia & the South Sandwich Islands (GSGSSI) requires that certain additional conditions are also complied with, details of which are provided below.

1.2. GSGSSI’s principal fisheries management objectives are to regulate fishing in the Maritime Zone so as to conserve fish stocks and other marine living resources, in line with Article II of CCAMLR, and to maintain safe and sustainable fisheries. As part of these objectives GSGSSI is committed to maintaining, and raising where practicable, the standards of management, research and operation in all its fisheries. These standards have led to the award of Marine Stewardship Council certification for the toothfish fishery. GSGSSI’s fisheries management strategy is generally more precautionary than CCAMLR, with an objective of maintaining the stock at around 55% of virgin spawning biomass rather than the CCAMLR target of 50%. This is to allow for natural variability in the stock and known uncertainty in the stock assessment.

1.3. There are two toothfish fisheries in the SGSSI Maritime Zone. The South Georgia fishery for Patagonian toothfish (*Dissostichus eleginoides*) is in CCAMLR Subarea 48.3. It is open from 16 April until 31 August. The South Sandwich Islands fishery for *Dissostichus mawsoni* and *D. eleginoides* is in CCAMLR Subarea 48.4. It is open from 1 February until 30 November.

1.4. The main legislation governing the management of the fisheries in the Maritime Zone is the Fisheries (Conservation and Management) Ordinance 2000 as amended (the FCMO), which is available on the GSGSSI website at: [www.gov.gs](http://www.gov.gs).

1.5. The SGSSI Marine Protected Area (MPA) was established in February 2012. The protection measures are set out in the MPA management plan and established in law through the Marine Protected Areas Order 2013. All fishing operations must comply with the requirements of the MPA.

1.6. In early 2016 six vessels were offered licences for the South Georgia Patagonian toothfish fishery in the 2016 and 2017 seasons. Two vessels were offered licences for the South Sandwich Islands toothfish fishery. This document provides information on fees and licence conditions for the 2017 season.
2. **Quota for the 2017 Season**  

**Subarea 48.3**

2.1. CCAMLR has set a two-year catch limit of 2750 tonnes of *D. eleginoides* in CCAMLR Subarea 48.3 (South Georgia waters) for the 2017 season. On the basis of scientific advice, the Director of Fisheries will allocate **2200 tonnes for the 2017 season**.

2.2. The 2017 catch limit will be further sub-divided into CCAMLR Management Areas B and C. In the 2017 season the catch limits will be 700 tonnes in Area B and 1600 tonnes in Area C (although the total catch for both areas cannot exceed 2200 tonnes). Licensed vessels will be required to catch some of their quota in each of the Management Areas.

2.3. For the 2017 season the licence fee for toothfish in Subarea 48.3 will consist of an access fee of £15,468 per month and a quota fee of £1,979 per tonne. Access and quota fees must be paid in full by close of business (1630hrs GMT-3) 31st March 2017. Late payments will likely result in suspension of licence until payment has been made. Operators of vessels that complete their quota early will, upon application to the Director, receive a refund of their access fee on a weekly pro-rata basis. Any such application must be received by close of business (1630hrs GMT-3) 29th September 2017. No refund will be given for applications received after this date.

2.4. By-catch limits for the 2017 season for skates and *Macrourus* spp. in Subarea 48.3 are 110 tonnes for each species group.

**Subarea 48.4**

2.5. CCAMLR has set catch limits of 47 tonnes of *D. eleginoides* and 38 tonnes of *D. mawsoni* in Subarea 48.4 (South Sandwich Islands) in 2017. On the basis of scientific advice, the Director of Fisheries will allocate **43 tonnes of *D. eleginoides* and 35 tonnes of *D. mawsoni* in the 2017 season**.

2.6. For the 2017 season the licence fee for toothfish in Subarea 48.4 will consist of an access fee of £15,468 per month plus a quota fee of £1,445 per tonne. Access (one month initially) and quota fees must be paid in full by close of business (1630hrs GMT-3) 3rd March 2017. Late payments will likely result in suspension of licence until payment has been made.

2.7. By-catch limits for the 2016 season for skates and rays, and *Macrourus* spp., in Subarea 48.4 are 4.0 tonnes and 12.6 tonnes respectively.
3. **Licence Conditions**

3.1. Every licence is subject to a number of Licence Conditions set out in Annex A. These relate to:

- the provision of documentation to the Director of Fisheries by January 31st 2017 (Annex A: Section 1);
- conditions while fishing in the Maritime Zone and subject to pre-fishing inspection at King Edward Point (Annex A: Section 2);
- additional conditions while fishing in the Maritime Zone (Annex A: Section 3).

3.2. A licensed vessel is granted access to the fishery subject to meeting the Licence Conditions. Compliance with the Licence Conditions is required throughout the season.

3.3. The purpose of the pre-fishing inspection at King Edward Point is to satisfy the Government Officer that the vessel is equipped to:

1. comply with all relevant CCAMLR CMs; and
2. comply with all relevant conditions of the licence.

3.4. If a vessel fails the pre-fishing inspection the licence will be suspended.

3.5. Licences may be subject to further conditions. Licence holders will be notified of any such conditions.

3.6. Applicants are reminded that under the FCMO the vessel's owners, charterers and master are liable to prosecution if any of the licence conditions are breached.

4. **Further Information**

Additional information on VMS, Catch Verification, the South Georgia & the South Sandwich Islands Marine Protected Area, relevant CCAMLR Conservation Measures, fishing seasons, conversion factors, tagging requirements, and definitions of terms used in this document, are provided in Annex B. The information included in Annex B is valid for the 2017 season. GSGSSI science and research priorities are listed in Annex C. Vessels will be asked to assist in the delivery of these.
ANNEX A

TOOTHFISH FISHERY LICENCE CONDITIONS

Section 1: documentation to be provided to the Director of Fisheries by January 31st 2017.

1. VMS records, validated by the Flag State, with a copy also provided in Excel or CSV format to date:
   a. from 1st January 2016; or
   b. if the vessel fished in the Maritime Zone in the preceding year, from the date she completed catch verification in Stanley;

   In addition, please indicate whether the vessel reports data to the CCAMLR centralised VMS system year round.

2. details of any changes to the specification of the VMS system and photographs of any new system.

3. a copy of the Fire Plan and a contingency plan for operations in South Georgia waters. Such a plan should note that the fishing grounds are geographically isolated and that GSGSSI cannot provide support in case of breakdown or emergency. We recommend that vessels do not work in isolation and that your plans include provision such that another vessel in the fishery will provide back-up in case of emergency.

4. details of the type (species), source and quantity of bait. Bait should be from a sustainable source, ideally a certified sustainable source.

5. details of any other changes to the information provided in the original licence application.

Additionally, vessels must lodge an example of their hook type with the GSGSSI in Stanley at least two weeks prior to the commencement of fishing. A second hook is to be lodged with the Government Officers when the vessel is inspected at South Georgia.

Section 2: conditions while fishing in the Maritime Zone and subject to pre-fishing inspection at King Edward Point.

On arrival at King Edward Point (South Georgia) for a pre-fishing inspection and throughout the time in the SGSSI Maritime Zone the vessel must:

1. have a fluent English speaker on board and that English speaker must be identified to the Government Officer before the licensing inspection. If the fluent English speaker changes during the season the Government Officer must be informed immediately;

2. be flagged to a CCAMLR Member State;

3. have a licence from that Flag State to fish for toothfish in sub-Area 48.3 or 48.4 (as appropriate) valid for so long as it is intended that she shall be in the Maritime Zone. (Any change of Flag State must be notified to the Director of Fisheries);

4. have an IMO number;
INFORMATION FOR TOOTHFISH LICENCE HOLDERS 2017

5. be compliant with the provisions of the Torremolinos Protocol of 1993 relating to the Torremolinos International Convention for the Safety of Fishing Vessels 1977. A statement from the UK Maritime and Coastguard Agency (MCA) or an MCA-approved inspector to confirm their compliance with the Torremolinos Protocol must be provided;

6. have a Ships Sanitation Certificate valid for so long as it is intended that she shall be in the Maritime Zone;

7. have a safety certificate from the Flag State valid for so long as it is intended that she shall be in the Maritime Zone;

8. (for Subarea 48.4 licences) have a minimum ice classification standard of ICE-IC (as defined in the Det Norske Veritas (DNV) Rules for Classification of Ships) or an equivalent standard of certification as defined by a recognised classification authority;

9. have a Wreck Removal Certificate;

10. have charts 3588 and 3587 or their electronic equivalent;

11. have a full set of CCAMLR Conservation Measures for the appropriate season;

12. have a fire plan for the vessel;

13. have a contingency plan including contact numbers in case of emergency;

14. have sufficient life jackets for everyone (including the observer(s)) on board for as long as it is intended that she shall be in the Maritime Zone; all life-jackets must be in good condition, fitted with light (with batteries in date), whistle and reflective tape and be accessible in the event of an emergency;

15. have on board sufficient life raft places on both port and starboard side for every officer, crew member and observer(s) who will be on board for so long as it is intended that she shall be in the Maritime Zone;

16. have sufficient immersion suits for all personnel on board (including the observer(s)) for as long as it is intended that she shall be in the Maritime Zone; immersion suits must be in good condition and readily accessible in case of emergency;

17. have an operational and tamperproof Vessel Monitoring System (VMS) on board which conforms to the standards set out in this document (see Annex B);

18. be equipped with an operational Class A Automatic Identification System (AIS);

19. have a pilot ladder which conforms to the standards set out in IMO Resolution A889 (21) for Pilot Ladders;

20. be marked in accordance with the FAO Standard Specifications for the Marking and Identification of Fishing Vessels;

21. have a single-occupancy officer-standard cabin available for the observer. GSGSSI will deploy a second observer or scientist on a rotational basis on all vessels. The second observer or scientist should have a single-occupancy officer-standard cabin. If such cabin is not available, the second observer could share a cabin with the primary observer as the only suitable alternative. The second observer will provide extra hook-line observations, ensure consistency between observers on different vessels and undertake additional scientific work;
22. ensure that the vessel has an adequate, safe working area for the observer(s). The working area shall include the following:
   a. a non-slip workspace of at least 2 m by 0.6 m, equipped with a good quality measuring board (150 cm)
   b. easy access to a motion sensitive balance (close to the observer workstation) suitable for weighing 30 kg and accurate to 10 g.
   c. a 2 m long holding tank with water supply for fish tagging and recovery. Ideally tanks should be circular.
   d. a tagging station with sufficient space for observers to measure and tag fish.
   e. if a vessel is not able to meet these requirements, the operator should contact the Director of Fisheries and inform him of any deficiencies in relation to the observer work area.

23. not import into the Territory or have in its possession any animal or part thereof, except as permitted under a fishing licence, which would constitute a breach of the Wildlife and Protected Areas Ordinance 2011.

Section 3: additional conditions while fishing in the Maritime Zone

In addition to conditions set out in Section 2, the following conditions will apply to all licensed vessels while operating in the Maritime Zone:

1. the quota specified in the licence must not be exceeded. Operators are reminded that this is a limit not a target.

2. all CCAMLR Conservation Measures (CMs) relevant to the fisheries and area must be complied with (see Annex B). A copy of the most recent CMs should be on board.

3. from the start of the season until their final departure from the South Georgia & the South Sandwich Islands Maritime Zone, all vessels must make VMS transmissions to the GSGSSI’s Fisheries Monitoring Centre in FISHOPS (FIG Fisheries Dept., Stanley) every hour (CM 10-04) and meet minimum ALC (Automatic Location Communicator) requirements in line with CM10-04 (2015).

4. no fishing, unless requested by GSGSSI for research purposes, shall take place in depths shallower than 700 m or depths greater than 2250 m, or within the No-take Zones or within the Benthic Closed Areas of the South Georgia & the South Sandwich Islands Marine Protected Area (see Annex B).

5. vessels must not use any form of net bag for line weights or anchor weights.

6. in 48.3 longlines shall be set at night only. In addition, between April 16th and May 15th (inclusive) line setting must be completed at least 3 hours before sunrise, and wherever possible after May 15th.

7. in 48.4 longlines should be set at least 3 hours before sunrise wherever possible. Any vessel catching a total of three (3) seabirds shall immediately be required to set longlines at night only.

8. vessels must comply with all relevant GSGSSI and CCAMLR reporting requirements. These
include:

a. daily catch and position reports which must be made to the Government Officer at KEP. The GSGSSI daily reporting form has changed and instructions will be provided. This will include whale sightings (number and species), incidental catches, and vessel sightings.

b. daily vessel position reports which must be sent to the GSGSSI Fisheries Patrol Vessel whilst the vessel is fishing within the SGSSI MZ. Government Officers will provide details.

c. CCAMLR five-day catch and effort reporting that is required by CM 23-01, which must be submitted directly to CCAMLR.

d. CCAMLR monthly fine-scale catch and effort reporting, which must be recorded on the CCAMLR C2 form as required by CM 23-04. This must be submitted directly to CCAMLR and copied to the Government Officers. These reports should include all catch, including toothfish, other fish by-catch, any incidental catches, benthos and lost gear.

e. Fine-scale biological data must also be collected and reported in accordance with the CCAMLR scheme of international scientific observation. The observer should normally complete this requirement.


9. the Conversion Factor and cut stipulated on the licence must be used (see Annex B). The CF will be based on data collected by the CCAMLR observer during the 2016 season. Vessel operators must inform the Director of Fisheries if the cut is likely to change from that used in the 2016 season.

10. hooks must not be discarded overboard. Hooks must not be stored on the vessel, nor be discarded on the vessel, in a way that could lead to them being lost overboard. Vessels must use vessel-specific marked hooks as provided to the Director of Fisheries pre-season.

11. all catch is subject to GSGSSI weighing/verification procedures. Vessels must proceed directly to Stanley once they have caught their quota and will be expected to unload all their catch, including sub-product, for verification.

12. an observer appointed under the CCAMLR scheme of international scientific observation must be on board while fishing and all reasonable efforts must be made to facilitate the completion of their biological sampling and other tasks. Communications between the vessel and the observer will ordinarily be in English.

13. vessel operators must liaise with GSGSSI and their contractors MRAG to arrange for observers to be placed on board vessels. If a vessel is delayed more than 48 hours vessel operators will be expected to meet the observer costs for the period of the delay.

14. all vessels must achieve a tagging rate of 1.3 toothfish for every tonne caught in sub-Area 48.3 and 5 or more fish per tonne in sub-Area 48.4. It is the responsibility of the vessel’s operators to ensure that the required tagging rate is achieved, although the observer may undertake the tagging.

15. all vessels must achieve a tag overlap statistic of 75% (see Annex B).

16. vessels are reminded that all released toothfish must be double-tagged. All toothfish released
must be tagged in accordance with CCAMLR tagging protocols. All toothfish that are not tagged must be retained (CM Annex 41-01/C).

17. vessels must follow tagging protocols as defined by CCAMLR for the handling of skates during hauling. The vessel must allow observers to tag skates as required.

18. vessels must, during set periods (notified to the Master by the Director of Fisheries or his representative), carry out scientific research as required (details to be provided).

19. vessels fishing within the MZ of SGSSI are prohibited from dumping or discharging garbage. All garbage must be incinerated or stored on board for disposal on shore (not on South Georgia). The following is not permitted to be discarded at sea:
   (i) oil or fuel products or oily residues into the sea, except as permitted under Annex I of MARPOL 73/78;
   (ii) garbage;
   (iii) food wastes not capable of passing through a screen with openings no greater than 25 mm;
   (iv) poultry or parts (including egg shells);
   (v) sewage within 12 n miles of land, or sewage while the ship is travelling at a speed of less than 4 knots;
   (vi) incineration ash.

20. all garbage must be incinerated or stored on board for disposal on-shore (not South Georgia).

21. for vessels fishing in the South Sandwich Islands (sub-Area 48.4) all product must be packaged in a manner that clearly distinguishes it from South Georgia (sub-Area 48.3) product (e.g. different coloured sacks / labels). Products from different sub-areas should ideally be stored in separate areas of the hold.

22. quota is not normally transferable between vessels, but can be returned to GSGSSI. In exceptional circumstances the Director of Fisheries will consider transfer of quota between vessels if the vessels involved share the same owner (or charterer) and operator. If, in such circumstances, the Director of Fisheries agrees to the transfer of quota any consequent amendments to licences will be subject to an administration fee of £100 per licence.

23. if a vessel is not able to catch its entire allocated quota GSGSSI will consider buying it back under the following arrangements:
   ▪ Until 2000 GMT on June 30th quota may be sold back to GSGSSI at 90% of the purchase price.
   ▪ Until 2000 GMT on July 31st quota may be sold back to GSGSSI at 80% of the purchase price.
   ▪ Until 2000 GMT on August 16th quota may be sold back to GSGSSI at 70% of the purchase price.
   ▪ No quota will ordinarily be bought back by GSGSSI after 2000 GMT on August 16th.

Note that GSGSSI will only buy back quota if it is able to sell it to another licensed vessel, but even if it is able to do so reserves the right not to buy back that quota.

Any quota bought back by GSGSSI will be made available for sale to other licensed vessels,
24. any changes of Master during the season must be notified to the Director of Fisheries.

25. the Director of Fisheries reserves the right to exclude a vessel on the following grounds:
   (a) the vessel is or has been involved in illegal, unregulated, or unreported fishing ("IUU", see Annex B for definition of the terms);
   (b) the owner, charterer or operator of the vessel is, or includes (or will be, or will include, when the vessel is in the maritime zone), one of the following:
      i. a company, individual, or other entity which is or has been involved in IUU fishing;
      or
      ii. a company, individual, or other entity, any associate (see Annex B for definition) of which is or has been involved in IUU fishing.

In determining these matters, the Director may take into account information concerning IUU activities provided by CCAMLR Contracting Parties or the CCAMLR Commission, including, but not limited to, the list of vessels involved in IUU fishing which is maintained by the Commission.

26. if the GSGSSI, or the UK Government, is owed money by a debtor in connection with a matter related to the management of any SGSSI fishery including, but not limited to, quota/access fees or damages, costs, or a fine awarded by a Court or arbitral tribunal in respect of a SGSSI fishery-related case, it is likely that this will lead to suspension of the licence of the vessel which is or which will be when in the Maritime Zone owned, chartered or operated whether solely or jointly by the debtor or by any associate thereof.
1. SPECIFICATIONS FOR VESSEL MONITORING SYSTEM

CCAMLR CM 10-04 (2015) states that:

2. Each Contracting Party shall ensure that its fishing vessels, licensed in accordance with Conservation Measure 10-02, are equipped with an ALC that meets the minimum standards contained in Annex 10-04/C. For finfish fisheries, commencing 1 December 2015, the ALC must transmit VMS data every hour while the fishing vessel is operating in the Convention Area. For all other fisheries, the ALC must transmit VMS data every four hours, with this requirement to change to every hour commencing 1 December 2019.

6. Fishing vessel masters, owners or their authorised representatives whose fishing vessel is subject to this conservation measure, shall ensure that the ALC on board their fishing vessel transmits VMS data in accordance with paragraph 2, to the Flag State while the vessel is in the Convention Area. Fishing vessel masters, owners or their authorised representatives shall ensure that:
   (i) the ALC is not tampered with in any way;
   (ii) VMS data are not altered in any way;
   (iii) the antennae connected to the ALC is not obstructed in any way;
   (iv) the power supply of the ALC is not interrupted in any way; and
   (v) the ALC is not removed from the vessel except for the purposes of paragraph 9.

13. The ALC must have:
   (i) all components sealed by the manufacturer; or
   (ii) official seals, individually identified with unique serial numbers, applied to any bridge or antennae component that alone, or in conjunction with another component, transmits data.

15. The ALC must have an alternate power unit, to act as a backup in case of failure of the main power, to enable the ALC to continue to meet the transmission requirements of paragraph 2 of this conservation measure.

VMS transponders on vessels which intend to fish in the South Georgia Maritime Zone should meet the following criteria:

- Internal GPS Static Unique Identifier
- Internal connections to GPS and satellite communications antennas
- Internal power connection
- Internal backup battery
- Physical seals for unit and bulkhead connections
- Solid state memory capable of storing the following events and forwarding them on resumption of service.
  1. Power cut
  2. Power on / power off
  3. Loss of GPS signal
  4. Loss of communications signal
  5. Unit opened (intrusion alarm)
  6. History of position information
2. CATCH VERIFICATION

1. There is no longer a need to email Chain of Custody data to Government Officers at KEP. Vessel operators are now responsible for their own Chain of Custody certification. GSGSSI will still enforce traceability protocols as required by the MSC standard.

2. All toothfish box/sack labelling should meet Chain of Custody certification standards.

3. There will be no transhipment of toothfish products at sea. All toothfish product is to be landed in Stanley, Falkland Islands.

4. GSGSSI will continue to issue a Catch Verification Certificate.

3. CCAMLR MANAGEMENT AREAS

1. Fishing is only permitted in CCAMLR management areas B & C of sub-Area 48.3. No fishing is permitted in Management Area A.

2. The boundaries of the Management areas are given in Table 1.

<table>
<thead>
<tr>
<th>Area</th>
<th>North Limit</th>
<th>South Limit</th>
<th>West Limit</th>
<th>East Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Area A</td>
<td>52° 30'</td>
<td>56° 00'</td>
<td>48° 00'</td>
<td>43° 30'</td>
</tr>
<tr>
<td>Management Area B</td>
<td>52° 30'</td>
<td>56° 00'</td>
<td>43° 30'</td>
<td>40° 00'</td>
</tr>
<tr>
<td>Management Area C</td>
<td>52° 30'</td>
<td>56° 00'</td>
<td>40° 00'</td>
<td>33° 30'</td>
</tr>
</tbody>
</table>

4. THE SOUTH GEORGIA & THE SOUTH SANDWICH ISLANDS MARINE PROTECTED AREA

The South Georgia & the South Sandwich Islands Marine Protected Area was established, by order, in February 2012 and was updated by a revised order in June 2013. As a consequence of that order areas detailed in Table 2 and in Figure 1 are closed to bottom fishing, unless a permit is issued to the vessel’s operator under the Wildlife and Protected Areas Ordinance.

<table>
<thead>
<tr>
<th>Closed Area</th>
<th>North Limit</th>
<th>South Limit</th>
<th>West Limit</th>
<th>East Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern</td>
<td>53° 36'</td>
<td>53° 54'</td>
<td>35° 48'</td>
<td>35° 36'</td>
</tr>
<tr>
<td>West Gully 1</td>
<td>53° 36'</td>
<td>54° 00'</td>
<td>40° 42'</td>
<td>40° 06'</td>
</tr>
<tr>
<td>West Gully 2</td>
<td>53° 36'</td>
<td>53° 54'</td>
<td>40° 06'</td>
<td>39° 54'</td>
</tr>
<tr>
<td>West Gully 3</td>
<td>53° 36'</td>
<td>53° 48'</td>
<td>39° 54'</td>
<td>39° 42'</td>
</tr>
<tr>
<td>West Shag</td>
<td>53° 12'</td>
<td>53° 24'</td>
<td>43° 30'</td>
<td>42° 48'</td>
</tr>
</tbody>
</table>
Eastern 54° 48' 54° 54' 34° 12' 34° 00'
Southern Seamount A 55° 30' 55° 50' 37° 30' 36° 50'
Southern Seamount B 55° 50' 56° 10' 36° 50' 36° 20'
North Georgia Rise 52° 20' 53° 00' 37° 40' 36° 45'
Protector Shoals 55° 45' 56° 05' 28° 20' 27° 30'
Kemp & Adventure calderas 59° 40' 59° 45' 28° 25' 27° 45'

Figure 1. Management Areas, No-take Zones and Benthic Closed Areas in with the South Georgia & the South Sandwich Islands Marine Protected Area.
Figure 2. West Shag Benthic Closed Area

Figure 3. West Gully Benthic Closed Area
Figure 4. Northern Benthic Closed Area

Figure 5. Eastern Benthic Closed Area
Figure 6. Southern Seamounts Benthic Closed Area

Figure 7. North Georgia Rise Benthic Closed Area
Figure 8. Protector Shoals Benthic Closed Area

Figure 9. Kemp and Adventure Calderas Benthic Closed Area
5. CONVERSION FACTORS
Vessel operators must inform the Director of Fisheries of any change in the cut for the 2017 season. A Conversion factor will be applied based on that calculated by the Observer in the 2016 season.

6. CCAMLR CONSERVATION MEASURES APPLICABLE TO THE FISHERY
Conservation measures that apply to this fishery include (but are not limited to):

CM 10-02 (2016) Licensing and inspection obligations of Contracting Parties with regard to their flag vessels operating in the Convention Area.
CM 10-05 (2016) Catch Documentation Scheme (CDS) for Dissostichus spp.
CM 10-09 (2011) Notification system for transshipments within the Convention Area
CM 23-01 (2016) Five-day Catch And Effort Reporting System.
CM 25-02 (2015) Minimisation of the incidental mortality of seabirds in the course of longline fishing or longline fishing research in the Convention Area.
CM 31-02 (2007) General measure for the closure of all fisheries.
7. FISHING SEASONS
The South Georgia fishery in sub-Area 48.3 operates from 16\textsuperscript{th} April until 31\textsuperscript{st} August. CCAMLR also makes provision for a 14-day extension to the season (to 14\textsuperscript{th} September), however GSGSSI will not permit vessels to fish beyond 31\textsuperscript{st} August.

The South Sandwich Islands fishery in sub-Area 48.4 operates from 1\textsuperscript{st} February until 30\textsuperscript{th} November.

8. CLOSURE OF THE SEASON
All fishing gear must be removed from the water by 23:59 hrs on the last day of the season (31\textsuperscript{st} August in South Georgia) (or sooner if the TAC for the area is taken).

9. TAG OVERLAP STATISTIC
Vessels are required to tag a representative size range of toothfish compared to the size range of fish caught. All vessels must achieve a tag overlap statistic of greater than 75 \%. The tag overlap statistic is calculated as follows:

\[
\theta = \left(1 - \frac{\sum_{i=1}^{n} |P_t - P_c|}{2}\right) \times 100
\]

where:

\(P_t\) is the proportion of all fish tagged in length bin \(I\);

\(P_c\) is the proportion of all fish caught (i.e. the sum of all fish caught and either landed or tagged and released) for lengths aggregated in 10 cm length bins;

\(P_t\) is derived from the measured lengths reported in form L11;

\(P_c\) is derived from the measured lengths reported in forms L6 and L11, and the total number of fish caught and reported in form C2. The measured length-frequency distribution of fish caught in each haul is scaled to the total number of fish caught in that haul, and the scaled length-frequency distributions are summed across all completed hauls.
10. DEFINITIONS

Associate

1. A person is an associate of an individual if that person is—
   a. the individual's husband or wife or civil partner,
   b. a relative of—
      i. the individual, or
      ii. the individual's husband or wife or civil partner, or
   c. the husband or wife or civil partner of a relative of—
      i. the individual, or
      ii. the individual's husband or wife or civil partner.

2. A person is an associate of any person with whom he is in partnership, and of the husband or wife or civil partner or a relative of any individual with whom he is in partnership; and a Scottish firm is an associate of any person who is a member of the firm.

3. A person is an associate of any person whom he employs or by whom he is employed.

4. A person in his capacity as trustee of a trust, other than a pension scheme or an employees' share scheme, is an associate of another person if the beneficiaries of the trust include, or the terms of the trust confer a power that may be exercised for the benefit of, that other person or an associate of that other person.

5. A company is an associate of another company—
   a. if the same person has control of both, or a person has control of one and persons who are his associates, or he and persons who are his associates, have control of the other, or
   b. if a group of two or more persons has control of each company, and the groups either consist of the same persons or could be regarded as consisting of the same persons by treating (in one or more cases) a member of either group as replaced by a person of whom he is an associate.

6. A company is an associate of another person if that person has control of it or if that person and persons who are his associates together have control of it.

Notes:

1. A person is a relative of an individual if he is that individual's brother, sister, uncle, aunt, nephew, niece, lineal ancestor or lineal descendant, treating—
   a. any relationship of the half blood as a relationship of the whole blood and the stepchild or adopted child of any person as his child, and
   b. an illegitimate child as the legitimate child of his mother and reputed father.

2. Any director or other officer of a company is to be treated as employed by that company.
3. A person is to be taken as having control of a company if—
   a. the directors of the company or of another company which has control of it (or any of them) are accustomed to act in accordance with his directions or instructions, or
   b. he is entitled to exercise, or control the exercise of, one third or more of the voting power at any general meeting of the company or of another company which has control of it;

and where two or more persons together satisfy either of the above conditions, they are to be taken as having control of the company.

4. “Company” includes any body corporate (wherever incorporated); and references to directors and other officers of a company and to voting power at any general meeting of a company have effect with any necessary modifications.

**Illegal** fishing refers to fishing activities:

1. conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations;

2. conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law; or

3. in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organisation.

**Unreported** fishing refers to fishing activities:

1. which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or

2. undertaken in the area of competence of a relevant regional fisheries management organisation which have not been reported or have been misreported, in contravention of the reporting procedures of that organisation.

**Unregulated** fishing refers to fishing activities:

1. in the area of application of a relevant regional fisheries management organisation that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organisation; or

2. in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law.
ANNEX C

Toothfish fishery science and sustainability research themes 2017

This describes the current ‘research themes’ that are a priority for GSGSSI’s long-term strategy for sustainable fishing. Some of these programmes will be a continuation of past programmes, and we welcome new ideas from the fishing industry. Operators should contact GSGSSI to discuss feasibility of their ideas and co-ordination with other initiatives.

1. Benthic closed area fish tagging Subarea 48.3

Two vessels will be asked to fish in Benthic Closed Areas for toothfish tagging purposes, continuing this successful multi-year research program. A research plan including position and numbers of lines, and numbers of fish to be tagged will be provide to the vessel in advance of the season. Feed-back from vessels previously involved in this program has been received, and any further feed-back would be welcome.

2. Shallow line fishing Subarea 48.3

In continuation of a successful programme initiated in 2016, all vessels will be asked to fish in waters shallower than 700m. This programme aims to examine portions of the stock that would not normally be accessed. A research plan including positions and numbers of lines, and sampling programme, will be provided to the vessel in advance of the season.

3. Research fishing in Subarea 48.4

Vessels licenced to fish in 48.4 will be asked to carry out directed fishing in accordance with the 4-year research plan developed for this sub-area. The details of the plan for 2017 (year 3 of the 4-year plan) will be provided in advance of the season. This research supports the 48.4 stock assessment process.

4. Impact of whale depredation

Depredation studies will continue based on photographic ID of orca and sperm whales. These data will be processed by our science advisers and will contribute directly to the COLTO sponsored Post-Doctoral Research Fellow studying whale depredation in CCAMLR toothfish fisheries.

5. Impact of longlining on benthic habitats

GSGSSI aims to directly assess the impact of longlines on benthic species and habitats though the use of video cameras attached to longlines. We are in the process of purchasing 4 cameras for deployment in 2017 which we would like to deploy on vessels during the season. These will be managed by trained scientific observers, with the aim of causing as little disruption to normal fishing as possible.
6. Ecology of toothfish

The environmental factors that determine, for example, distribution of toothfish around the Territory, the triggers for migration, and cues for reproduction are poorly understood generally for toothfish throughout the Antarctic. One way to better understand these factors is through detailed study of temperature and salinity information in the toothfish’s habitat. We will be continuing the 2016 temperature logger research on all vessels in 2017.

7. 48.2 / 48.4 CCAMLR Research fishing

Two vessels will be participating in this CCAMLR notified research fishing. GSGSSI will be issuing further information for these two vessels.

8. Improvements to fishery standards

GSGSSI’s fishery management goals include reducing impacts on the wider environment. We would like to encourage industry-led innovation in the areas of

- seabird by-catch mitigation
- hook / gear management
- ‘green’ technology in fishing
- improvements in waste management practices