



22 February 2023

Re: Iridium and its Provision of Satellite Services to Harmful Industrial Tuna Purse Seine Fisheries Using Drifting Fish Aggregating Devices (dFADs)

Dear Iridium,

We write to you from Ocean Rebellion. We are an art collective who explode art bombs to highlight ocean degradation. Our art bombs are interventions that engage a large audience. Our theory of change uses the media's thirst for visual news as an outlet to magnify the harms inflicted on the ocean and spotlight the organisations and failures of governance that cause it. Ocean Rebellion had a global reach of over 65 million impressions at CoP26 and more than 55 million at last year's UN Ocean Conference.

We commend and applaud your commitment to marine environmental sustainability. We note amongst others, your support for The Ocean Cleanup and the Outlaw Ocean Project¹. We also note from your website that Iridium is a *"leader in creating sustainable solutions for a stronger, safer tomorrow"* and that *"Iridium's satellite de-orbiting expertise, communications technology, and company policies drive a holistic approach to corporate sustainability."*

In particular, we are delighted to note from your company's Environmental Sustainability Policy Statement² (ESPS) that *"Environmental sustainability at Iridium means conducting our business in a manner that acknowledges, measures, and takes responsibility for our direct and indirect impacts on the environment."*

Further, we are pleased to note that Iridium strives to conduct its business in a way that *"carefully manages risk and ensures [your] growth is sustainable, thereby enabling [you] to continue to invest in [your] people, products and services, and communities **with minimal impact to the environment.**"*

Your ESPS goes even further to state that *"Our products, services and operations are **safe** for [...] the environment."*

It is therefore with great regret that we consider it necessary to highlight one small area of your extensive business operations which is highly unsustainable as well as extremely damaging to ocean biodiversity and marine ecosystems, and that is the ongoing provision of Iridium satellite services to Zunibal, Marine Instruments and SatLink. These three manufacturers make solar-powered satellite buoys that are attached to harmful drifting Fish Aggregating Devices (dFADs) that are used by distant water tuna purse seine fishing fleets to track their dFAD trajectories across the Indian Ocean and the Pacific Ocean using the Iridium network.

¹ <https://www.iridium.com/csr/>

² https://www.iridium.com/resources/resource-download/?idr_resource_download_nonce=763caa21f2&idr_force_download=1&idr_zip_download=0&resource-id=360066

The destructive nature of dFADs is well documented. We would therefore like you to consider the list of peer-reviewed scientific papers below which prove that the science is settled. Taken as a whole, these science papers indicate beyond a shadow of a doubt that unless the use of dFADs in the Indian Ocean and Pacific Ocean is quickly halted, yellowfin tuna populations will crash to unsustainable levels, pelagic shark, turtle, ray and cetacean populations will be severely impacted, and plastic pollution caused by lost, abandoned or discarded dFADs will continue to scar the seabed, coral reef atolls and pristine beaches around the world. It is unfortunate, yet clear, that this environmental mayhem is currently being enabled by Iridium.

List of Science Papers on the Destructive Nature of Drifting Fish Aggregating Devices

1. Guillermo Gomez , Samantha Farquhar , Henry Bell , Eric Laschever & Stacy Hall (2020)
'The IUU Nature of FADs: Implications for Tuna Management and Markets'³
2. Banks, R. and Zaharia M. (2020)
'Characterization of the Costs and Benefits Related to Lost and/or Abandoned Fish Aggregating Devices in the Western and Central Pacific Ocean'⁴
3. Quentin Hanich, Ruth Davis, Glen Holmes, Elizabeth-Rose Amidjogbe and Brooke Campbell (2019)
'Drifting Fish Aggregating Devices (FADs) Deploying, Soaking and Setting – When Is a FAD 'Fishing'?'⁵
4. Pierpaolo Consolia, Mauro Sinopolib, Alan Deidunc, Simonepietro Canesed, Claudio Bertie, Franco Andalorob, Teresa Romeoa (2020)
'The Impact of Marine Litter from Fish Aggregation Devices on Vulnerable Marine Benthic Habitats of the Central Mediterranean Sea'⁶
5. Lucas Bonnin, Christophe Lett, Laurent Dagorn, John David Filmalter, Fabien Forget, Philippe Verley, Manuela Capello (2020)
'Can Drifting Objects Drive the Movements of a Vulnerable Pelagic Shark?'⁷
6. John David Filmalter, Manuela Capello, Jean-Louis Deneubourg, Paul Denfer Cowley, Laurent Dagorn (2013)
'Looking Behind the Curtain: Quantifying Massive Shark Mortality in Fish Aggregating Devices'⁸
7. Alexandra Diallo, Mariana Travassos Tolotti, Philippe Sabarros, Laurent Dagorn, Jean-Louis Deneubourg, Hilario Murua, Jon Ruiz Gondra, Lourdes Ramos Alonso, José Carlos Báez, Francisco J. Abascal Crespo, Pedro José Pascual Alayón and Manuela Capello (2019)
'Silky Shark Population Trend in the Indian Ocean Derived from its Associative Behaviour with Floating Objects'⁹
8. Alexandra Maufroy , Emmanuel Chassot, Rocío Joo, David Michael Kaplan (2015)
'Large-Scale Examination of Spatio-Temporal Patterns of Drifting Fish Aggregating Devices (dFADs) from Tropical Tuna Fisheries of the Indian and Atlantic Oceans'¹⁰
9. Martin Stelfox, Christophe Lett, Geraldine Reid, Graham Souch, Michael Sweet (2020)
'Minimum Drift Times Infer Trajectories of Ghost Nets Found in the Maldives'¹¹
10. David J. Curnick, David A. Feary, Geórgenes H. Cavalcante (2020)
'Risks to Large Marine Protected Areas Posed by Drifting Fish Aggregation Devices'¹²
11. Burt, A.J., Raguain, J., Sanchez, C. et al. (2020)
'The Costs of Removing the Unsanctioned Import of Marine Plastic Litter to Small Island States'¹³

3 <https://www.tandfonline.com/doi/full/10.1080/08920753.2020.1845585>

4 https://www.bmis-bycatch.org/index.php/system/files/zotero_attachments/library_1/7RPKCVCDC%20-%20Poseidon_Pew1514_FAD-final-report_270120.pdf

5 https://brill.com/view/journals/estu/34/4/article-p731_8.xml

6 <https://cttf.uk/wp-content/uploads/2021/04/Consoli-et-al.-2020-published-paper.pdf>

7 https://brill.com/view/journals/estu/34/4/article-p731_8.xml

8 <https://www.fao.org/3/bh042e/bh042e.pdf>

9 https://iotc.org/sites/default/files/documents/2019/09/IOTC-2019-WPEB15-23_Rev1.pdf

10 <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0128023>

11 https://repository.derby.ac.uk/download/b45e3fe66cbad070e74a4b5f1a413b52e66632fb799a4db0b3e49311ddd86ca4/4248304/Manuscript_final.pdf

12 <https://conbio.onlinelibrary.wiley.com/doi/10.1111/cobi.13684>

13 <https://www.nature.com/articles/s41598-020-71444-6>

12. Robin Churchill (2021)
‘Just a Harmless Fishing FAD – or Does the Use of FADs Contravene International Marine Pollution Law?’¹⁴
13. Francis Marsac, Alain Fonteneau, Frédéric Ménard (2000)
‘Drifting FADs Used in Tuna Fisheries: An Ecological Trap?’¹⁵
14. Megan Bailey and U. Rashid Sumaila (2010)
‘The Cost of Juvenile Fishing: FADs Management in the Western and Central Pacific Ocean Tuna Fishery’¹⁶

At a February 2023 meeting of the UN Indian Ocean Tuna Commission (IOTC) held in Mombasa, Kenya, this overwhelming body of science helped sway more than two thirds of its members to vote for a landmark Conservation and Management Measure (CMM) which called successfully for stricter regulations on the use of drifting Fish Aggregating Devices¹⁷ – and by default their satellite buoys for which Iridium is providing the crucial communications network for them to operate. Whilst stopping short of calling for a full prohibition of dFADs, over two thirds of the IOTC's nation state members showed strong leadership in voting for strict curbs on the use of unsustainable and environmentally destructive dFADs as well as their satellite buoys.

Therefore, we are calling on Iridium to show similar environmental stewardship to those brave member states of the IOTC by phasing out the provision of satellite services to Zunibal, Marine Instruments and SatLink, the three dominant satellite tracking buoy brands used by the industrial tuna fishing fleet in the Indian Ocean and Pacific Ocean. As a suggestion, this could be done, for example, by halting the renewal of any existing contracts with any company that uses satellite services for tuna dFAD satellite buoys.

Ocean Rebellion is currently considering a campaign in this area, and so we would be most grateful for the opportunity of a meeting with a representative from Iridium to discuss these urgent environmental issues and potential reputational risk in more detail.

Finally, and noting point 7 in your ESPS which states Iridium focuses on environmental sustainability as a global strategic priority by fostering “*a culture of environmental awareness and stewardship among Iridium employees in the workplace and in our business practices*”, we hope that this message about the destructive nature of dFADs can be circulated amongst your employees in order to help foster that culture of environmental awareness and stewardship in your policy.

Yours sincerely,
Ocean Crew
x

14 <https://www.tandfonline.com/doi/full/10.1080/00908320.2021.1901342>

15 <https://archimer.ifremer.fr/doc/00042/15303/12636.pdf>

16 https://d2ouvy59p0dg6k.cloudfront.net/downloads/background_paper_cost_of_juvenile_fishing.pdf

17 <https://iotc.org/documents/management-dfads-idn-et-al>