

**Blue Security Joint Seminar on
Maritime Security Challenges in Southeast Asia**

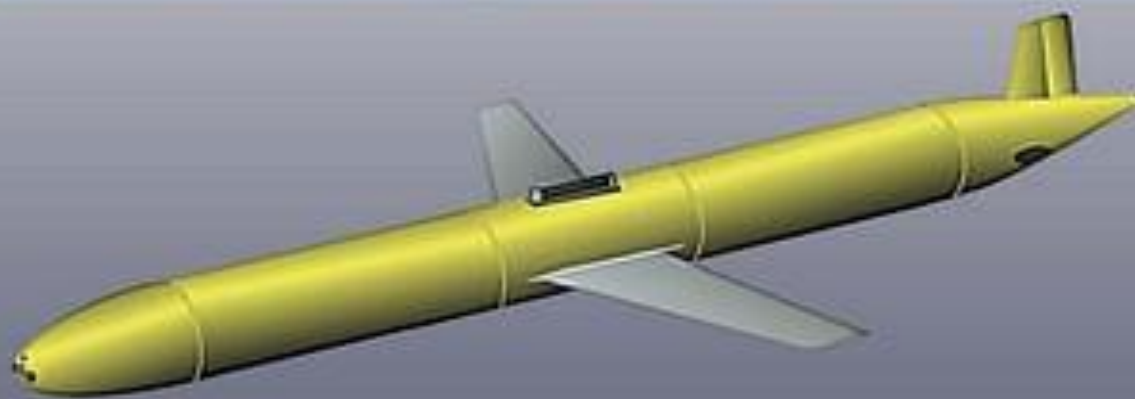
NUS Centre for International Law

25 May 2023

***Unmanned Naval Craft
and
Passage Regimes in 1982 UNCLOS***

Prof Robert Beckman

Chinese 'Sea Wing' (Haiyi) underwater gliders found in Asia

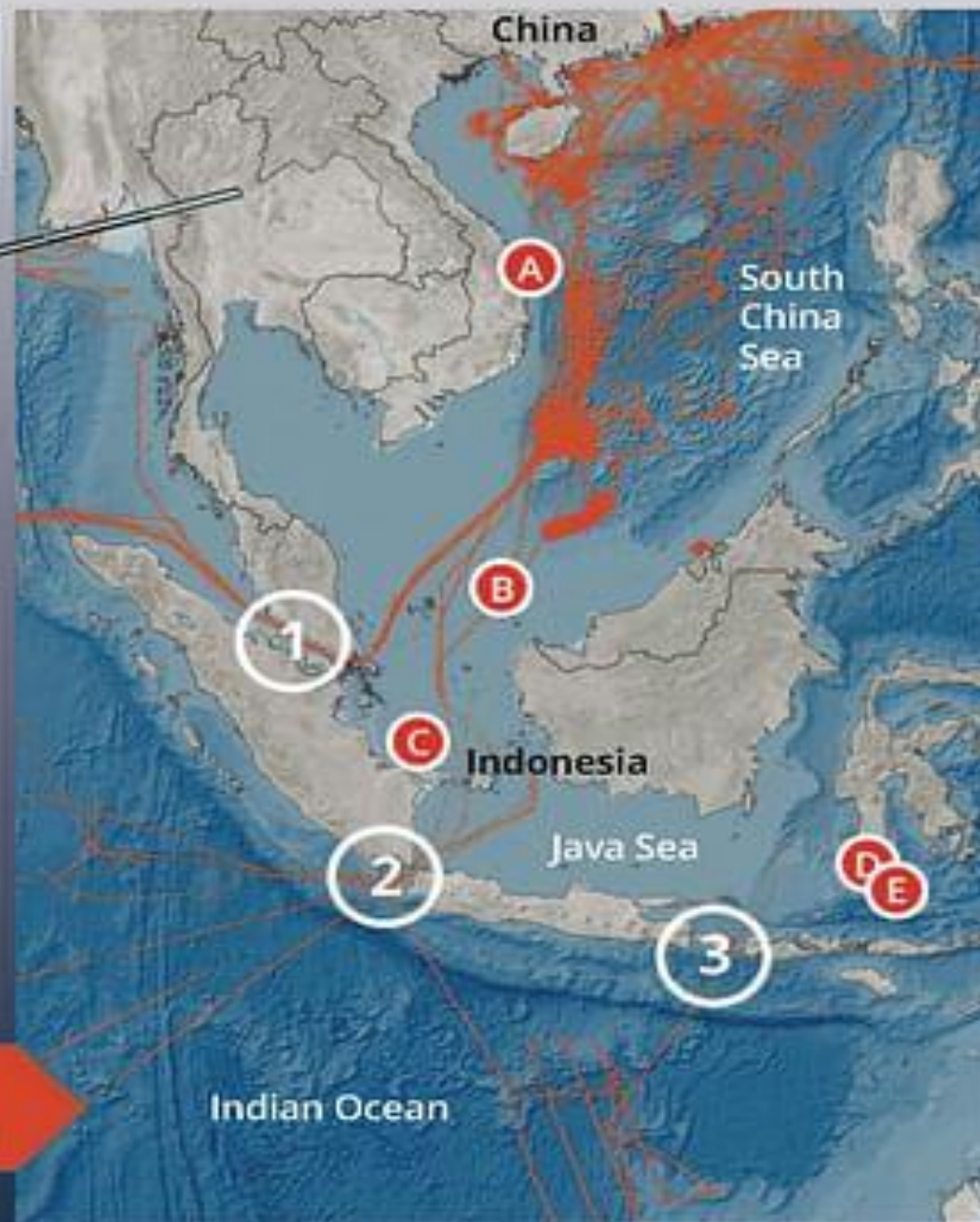


Reported Incidents of Sea Wing gliders found:

- A** 16 November 2016. Quang Ngai, Vietnam
- B** 12 February 2019. Bangka, Indonesia
- C** 23 March 2019. Riau Islands, Indonesia
- D** 22 January 2020. Masalembu, Indonesia
- E** 20 December 2020. Selayar Islands, Indonesia

1. Malacca Strait, 2. Sunda Strait, 3. Lombok Strait

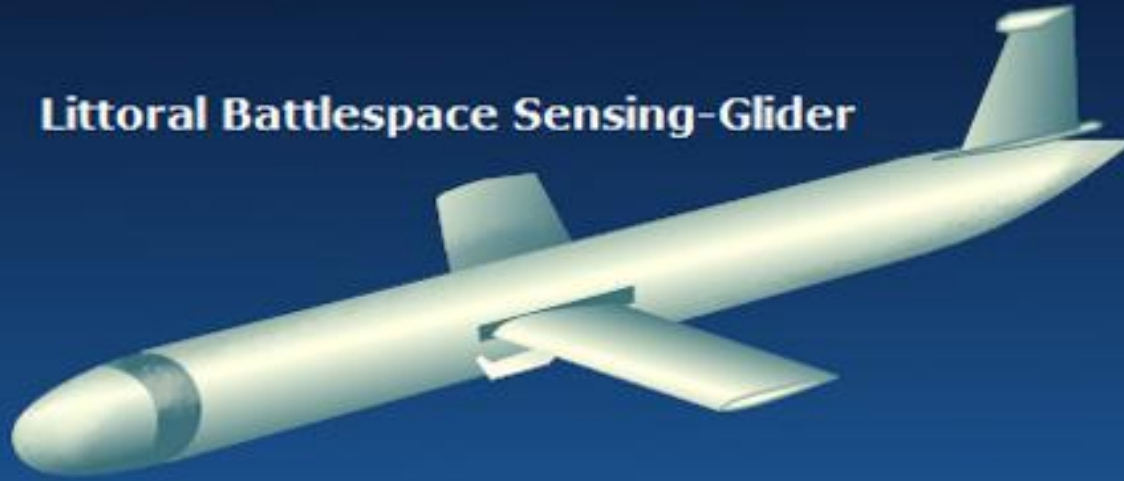
Red lines are ship tracks of selected Chinese survey ships, 2019-20. Data provided by MarineTraffic.com



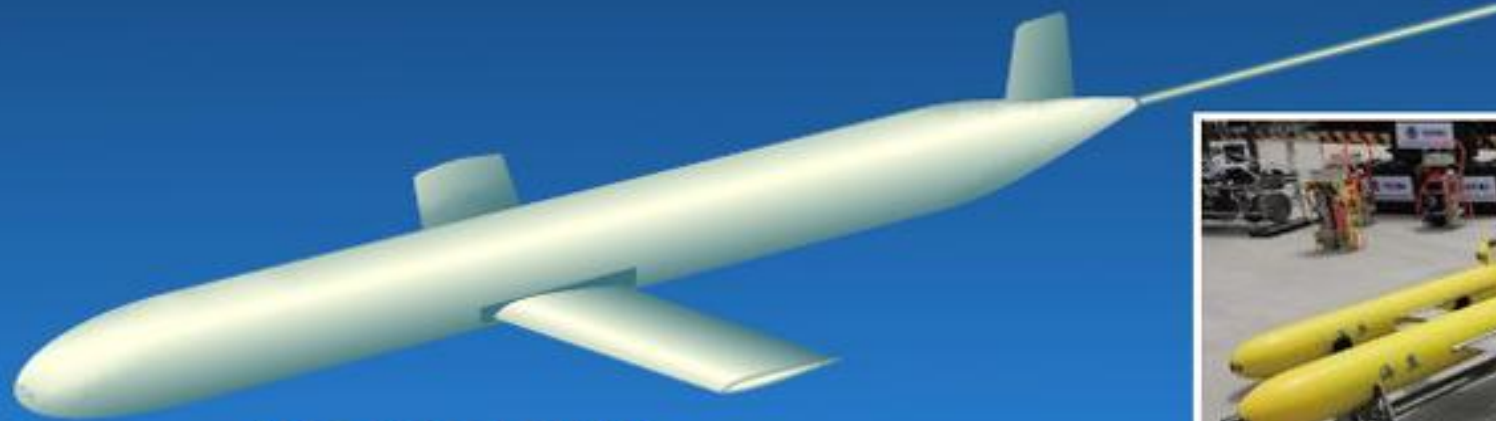
Chinese 'Sea Wing' ocean glider and U.S. Navy LBS-G (Littoral Battlespace Sensing-Glider)



Littoral Battlespace Sensing-Glider



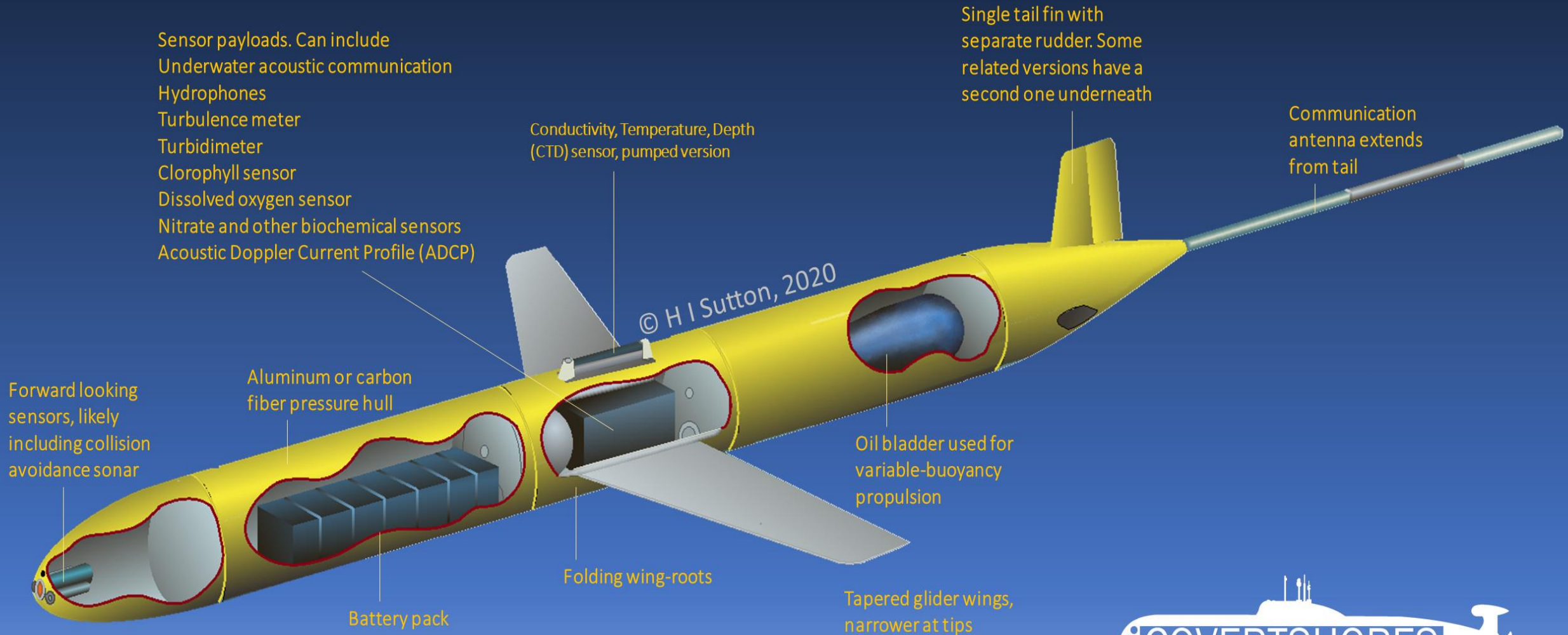
'Sea Wing' glider





Chinese 'Sea Wing' (Haiyi) glider

Provisional internal arrangement



Why Navies use Gliders

- Gliders are typically used for **environmental, hydrographic and bathymetric roles**, gathering data on
 - chlorophyll and oxygen levels,
 - water temperature,
 - salinity and turbidity,
- and are often used for **scientific research** to better understand the underwater environment
- and in a **military context** to calibrate sonar performance.

Submarine or Anti-Submarine Warfare (ASW) operations

1. Superior knowledge of a region's waters can enable submarines to operate more quietly and reduce the likelihood of discovery.
2. Conversely, intimate knowledge of these underwater characteristics can aid ASW personnel in hunting potentially hostile submarines.
3. The dual-use nature of such information will likely be exploited by the Chinese military, given China's clearly mandated Military-Civil Fusion policy of using available knowledge and technologies in the civilian and commercial for military advantages.

Location of AUVs in Indonesian Waters

- Strategic waterways and potential chokepoints such as the **Makassar** and **Lombok Straits** are close by where the latter AUVs were recovered
- The data gathered by these vehicles may have strategic implications, enhancing the ability of submarines and surface combatants to operate in those waters.

Issues under 1982 UNCLOS

1. Is it a “ship” entitled to the right of innocent passage through Indonesia’s territorial sea and archipelagic waters? [Art 17 & 52]
2. If Indonesia takes the position that an unmanned underwater glider is not a “ship” entitled to passage rights through its waters, can it prohibit its passage or confiscate it?
3. Given its special characteristics, can Indonesia require it to surface and fly its flag and use sea lanes and traffic separation schemes when exercising innocent passage through its waters? [Arts 20, 22 & 52]

Issues under 1982 UNCLOS

4. Foreign ships are prohibited from carrying out any **research or survey activities** during innocent passage, transit passage or archipelagic sea lanes passage? [Arts 19(2)(j), 40 & 54] What can the coastal State do if it believes the UUV is carrying out such activities?
5. If Indonesia believes its passage is **not innocent**, can it request it to leave its waters? How can request a UUV to leave? [Arts 25, 30]
6. Is it a “**submarine or other underwater vehicle**” entitled to exercise **archipelagic sea lanes passage** in its “normal mode” (submerged)? [Arts 20, 39(1)(c) & Art 54]
7. Is it a “**warship**” or “**government ship operated for non-commercial purposes**” and entitled to “**sovereign immunity**”? [Art 29]

Main Issues

1. Who should make the rules governing the rights and obligations of USVs and UUVs?
2. Should the rules proposed by the US, UK and Australia for unmanned systems also apply to China's unmanned systems ?
3. Should the technologically advanced States make the rules, or should less technologically advanced States whose security may be threatened have a voice in making the rules for the use of unmanned systems?