MOD’s final statement regarding the incident of an ROK naval vessel directing its fire-control radar at an MSDF patrol aircraft

【Reference Material】
(Provisional Translation)

January 2019
Ministry of Defense
Types of Radars and Their Characteristics (1/2)

Surface Search Radar

Searches/detects targets in surrounding areas by emitting radar waves while rotating.

Fire-control Radar

Continuously directs radar waves to target to obtain the target’s location, speed, etc. for precise firing of missiles and ammunition.
Types of Radars and Their Characteristics (2/2)

**Surface Search Radar**

- Periodical detection of radar waves

**Fire-control Radar**

- Continuous detection of intense radar waves

Search radar waves converted to sound

Fire-control radar waves directed at the P-1 by an ROK naval vessel converted to sound

※ Parts of the sound are processed for information security

※ This sound data is available at the MOD website ([http://www.mod.go.jp/j/press/news/2019/01/21x_eng.html](http://www.mod.go.jp/j/press/news/2019/01/21x_eng.html))
MOD’s Evaluation of Fire-control Radar Irradiation by an ROK Destroyer

Upon careful and meticulous analysis of the frequency, intensity, waveform, etc. of the radar waves directed at the P-1, the MOD has confirmed that the P-1 was continuously irradiated for a certain period, multiple times by an ROK vessel’s STIR-180. The STIR-180 is not mounted on the patrol and rescue vessel that was nearby at the time.
According to CUES, a code adopted by navies from 21 countries including Japan and the ROK, aiming fire control radars is considered a simulation of attack, and is stipulated as an action the prudent commander might generally avoid.
Overview of P-1 Flight (1/2)

① Flight from the stern to the starboard side of the ROK destroyer

② Flight past the stern of the ROK destroyer (Altitude: approx. 230m, distance: approx. 500m)

③ Right turn and gradual descent to approx. 150m to observe the ROK destroyer

④ Flight from the stern to the starboard side of the ROK destroyer

⑤ Flight past the abeam of ROK destroyer (Closest altitude: approx. 150m, closest distance: approx. 500m)

⑥ The distance from the vessel at the when flying past the bow of the ROK vessel was approx. 1,100m

⑦ Gradual left turn to observe the full-view of the site

ROK Destroyer

ROK Patrol and Rescue Vessel

P-1 Patrol Aircraft
Overview of P-1 Flight（2/2）

① Call-out to the ROK destroyer. From then on, continuous call out to the destroyer while moving away from the ROK destroyer.

⑧ Right turn for separation from destroyer after fire-control radar irradiation was confirmed.

⑨ Confirmed that the gun of the ROK destroyer was not directed to the P-1.

⑩ In response to fire-control radar irradiation, left turn to observe the full-view of site once more.

⑪ Call-out to the ROK destroyer. From then on, continuous call out to the destroyer while moving away from the ROK destroyer.
### Examples of Flight Patterns the JSDF Generally Avoids

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<th>Crossing in frontal vicinity of vessel</th>
<th>Flying towards vessel</th>
<th>Simulation of attack near vessel</th>
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<tr>
<td><strong>Image</strong></td>
<td><strong>Overview</strong></td>
<td><strong>P-1’s flight</strong></td>
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<tr>
<td><img src="image1.jpg" alt="Image" /></td>
<td>Crossing in frontal vicinity of a vessel that may force the vessel to change its course/speed</td>
<td>The P-1 maintained approx. 1.1 km distance from the bow of the vessel, and its course moved away from the said vessel. Therefore, the P-1 did not crosscut in frontal vicinity of the vessel.</td>
</tr>
<tr>
<td><img src="image2.jpg" alt="Image" /></td>
<td>Flying towards a vessel that will result in the aircraft flying directly above the vessel if the aircraft were to proceed with its course</td>
<td>The P-1 at no point took a course that would pass directly above the vessel. Therefore, the P-1 did not fly towards the vessel.</td>
</tr>
</tbody>
</table>
| ![Image](image3.jpg)                  | • Aiming weapons such as guns and fire control radars  
• Maneuvering simulation of machine gun firing/bombing  
• Sudden dive etc | The P-1 did not simulate attack near the vessel for the following reasons:  
• The P-1 was not equipped with anti-ship missiles or fire-control radars  
• Machine guns were not equipped, and the bomb door was closed during flight  
• Constant altitude/speed was maintained in vicinity of the vessel  
• It is obvious from the exchanges between P-1 crew members filmed in the footage released by the MOD that there was no intention to threaten the ROK vessel |

**The P-1 did not take any of these flight patterns**
Past Flights around ROK Navy's Destroyer “Gwanggaeto-daewang” (Fiscal Year 2018)

The ROK did not express its concern regarding these flights