## 5. Summary (conclusion)

The accidents of recreational fishing vessels involving casualty or injury have the following characteristics based on the situations where they occurred.

- About 50% of accidents involving casualty or injury of anglers occurred due to pitching, etc.
- About 30% of anglers suffered from vertebral fracture due to pitching, etc.

Therefore, after we looked at the situations where these accidents due to pitching, etc. occurred, the following characteristics were found out.

- The accidents occurred, because the anglers' bodies were thrown into the air and fell when the ships are hit by waves from the bow side, the ship's body pitched, and the bow was lifted up.
- Accidents were caused not only by high waves over 2.0m but also by waves around 1.0m.
- Many accidents have occurred at a relatively low speed of 5~10 knots.
- According to seating positions of anglers, **most of accidents occurred in the front**.

We found out that the following points are important to prevent similar accidents.

- The masters and operators of recreational fishing vessels should set standards for moving anglers to the stern side from the midship such as wind direction, wind speed, wave direction, and wave height (depending on vessel speed).
- If the standards are exceeded while sailing, the masters and operators of recreational fishing vessels ensure safety by stopping to sail or reduce the speed sufficiently and then move anglers to the stern from the midship.
- The masters and operators of recreational fishing vessels obtain information on winds and waves of sea areas where they plan to sail. If the standards are exceeded, the masters and operators of recreational fishing vessels set sail after checking that anglers have moved to the stern from the central part.
- The masters of recreational fishing vessels, etc. comply with the operational rules (regulations on prevention of accidents involving injuries due to pitching and rolling).

## Comment from the Director of the Analysis, Recommendation and Opinion Office

We understand and appreciate that you pay special attention to safe navigation, while avoiding congestion of anglers as a measure against COVID-19.

It is our sincere desire that the measures for preventing accidents presented in the JTSB (Japan Transport Safety Board) DIGESTS help all of you to further ensure safety.

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We welcome your comments on "JTSB Digests" and requests for outreach lecturers

