Overview of “Expo 2025 Osaka, Kansai, Japan Visitor Transportation Performance Report” (Front)

Introduction

- Visitor transport was operated safely and smoothly throughout the 184 days without major accidents or incidents due to traffic congestion.
- Mass transport via direct rail connection, coordination of entry reservations and traffic services, restrictions on cars and cooperation in implementing TDM, etc. balanced safe and smooth transportation of visitors with minimal impact on socioeconomic activities.

Ⅰ. Council for Visitor Transportation Measures for Expo 2025 Osaka, Kansai, Japan (Specific Policy on Visitor Transportation) Dec. 2024

- The total no. of expected visitors remained unchanged at 28 mil. The planned peak daily visitor no. was reduced from 285,000 to 227,000 through ticket control and introducing a visit date and time reservation system to level demand.
- Transport mode share was estimated based on the 2005 World Exposition, Aichi, Japan taking into account the capacity of each mode.
- TDM, dynamic pricing for Expo P&R Parking, priority boarding for those with reservations on the Sakurajima Station shuttle bus, and integration with transport services such as MaaS, etc. were implemented.
- Transport Measures Subcommittee established to analyse traffic during the Expo, identify issues and report on characteristics and improvements (3 times in total).

Ⅱ. Number of Visitors

1. Total and Daily Visitor Numbers
- Total no. of visitors: approx.29 million. Maximum daily visitor no.: approx. 248,000. Average daily visitor no.: 158,000

2. Daily Visitor Number Trends During the Expo [Figures 1, 2]
- Until the “Obon” holiday visitor numbers were as expected or slightly below expectations. From September, daily visitor numbers exceeded expectations by approx. 50,000. After September 10, over 200,000 people visited each day.

3. Breakdown of Visitors by Origin [Figure 3]
- Out of about 29,020,000 visitors, about 27,020,000 were from Japan (93%), and about 2 million from abroad (6.9%). Among domestic visitors, about 17,700,000 were from Kansai (66%) and about 9,100,000 from outside Kansai(34%).

Ⅲ. Transport Results

1. Results by Mode [Figures 4, 5, 6]
- The mode share was roughly 70% for railways (10% higher than planned), 10% for station shuttle buses, etc., 20% for private cars, etc. (10% lower than planned).

2. Major Incidents Resulting in Transport Disruption
- Except for the Osaka Metro Chuo Line disruption on 13 August, there were no major incidents to overall transport that had a significant social impact.

3. Measures Implemented During the Expo
- We responded flexibly and promptly to visitor transport trends, making 5 revisions to shuttle bus schedules etc., and 8 operational improvements.

4. Transportation Control Through a Reservation System

1) Entry Reservation System and Slot Management
- Reservation slots at East Gate (mainly rail) and West Gate (buses, etc.) coordinated according to transport capacity and use.
- Visitors diverted from East Gate to West Gate to level demand.

2) Reservation Management of Sakurajima Sta. Shuttle Buses and P&R Shuttle Buses
- Sakurajima Sta. shuttle buses: reservation only on buses to the Expo early in the morning and return buses at night.
- P&R shuttle buses: boarding according to reservation time on buses to the Expo site. Priority boarding for those who reserved via the Liny system on return buses. Parking reservation slots were set according to transport capacity.

3) Reservation System Operation
- Station shuttle bus and airport bus reservations were managed with an advance reservation system via KANSAI MaaS.
- The advance reservation and payment system for Expo P&R parking required users to input their departure location and number of passengers to allocate parking spaces according to demand and transport capacity.
- ETC discounts offered to those who used detour routes.

5. TDM Initiative
- Promoted staggered working hours, particularly on weekdays, through flyers and commercials, and information provision to TDM partners (3,684 businesses).
- Congestion rate on Osaka Metro Chuo Line: From June to September, below the target of 120%. In peak October congestion, exceeded 120%, but no major disruptions occurred.
- Road Traffic: There was no major change in the number of vehicles on the Hanshin Expressway. Although traffic volume around the site increased compared to before the Expo, no issues occurred as the total traffic remained below the road's capacity.

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6. Findings of Transport Results
- Railway usage, which is more convenient than private cars and group buses, was higher than expected.
- Arrival demand was concentrated early in the morning, while return demand peaked late at night.
- Return demand was higher than expected after 20:00. This trend became more pronounced toward the end of the Expo.
- The West Gate was less crowded than the East Gate, so a shuttle bus reservation system, priority entry for P&R users and ship users, and increased shuttle bus service to the West Gate were implemented to encourage West Gate use.
- Return demand peaked when events were held, causing traffic congestion of taxis and shuttle buses and crowding at the transportation terminals.
- Demand for taxis exceeded estimates by about five-fold, especially toward the end of the Expo, due to their convenience and direct routes. [Figure 8]
- Last-minute demand brought the daily number of visitors to 200,000 and early morning queuing.

Ⅳ. Impact on General Traffic

1. Rail

1) Osaka Metro Chuo Line, etc.
- There was no major impact on regular transport. Morning congestion was managed through extra trains, etc.
- Crowding occurred during events and when people were leaving the Expo site, but there was no major impact on regular traffic thanks to event time adjustments and promotion of staggered boarding.

2) JR-WEST Sakurajima Line (Yumesaki Line), etc.
- Though USJ visitors also used trains, a reservation-only system for Sakurajima Sta. shuttle buses during the morning helped control crowding and avoid major disruption to the JR Sakurajima Line, Bentencho Station, and nearby areas.

2. Roads
- Temporary congestion occurred on outbound lanes of Konohana Bridge, but overall, there was no major congestion due to Expo traffic on the Hanshin Expressway and roads around Yumeshima and Maishima.
- Toward the end of the Expo, cars waiting before opening caused disruptions to bus services at Maishima P&R parking E, but there was no major impact on general traffic at the other Maishima P&R parking areas thanks to the one-way traffic system, etc. on the perimeter road.
- There was no major congestion or traffic jams around Sakai and Amagasaki Expo P&R Parking.

Ⅴ. Evaluation of Individual Measures

1. Arrival Demand-Levelling
- Arrival demand was levelled by ticket control and introducing a visit time and date reservation system.
- Expo P&R parking targeted visitors from areas where access by car is advantageous, such as mid- to long- distance areas with little public transport. Dynamic pricing and incentives for highway use helped to divert traffic. [Figure 7]
- For school trips, demand was levelled and safety for lower-grade students on trains was ensured through priority reservation slots during off-peak seasons.

2. Departure Demand-Levelling
- Event end times were moved forward toward the end of the Expo period, and early exit was encouraged through “Transport Information” webpage, on-site announcements and signage. Sakurajima Station shuttle buses were made reservation-only after 20:00 on peak days.

3. Provision of Transport Information
- The “Transportation Information (MaaS for visitors to the Expo)” webpage provided information about routes from major stations, shuttle buses, Expo P&R Parking and real time traffic information facilitating smooth transport.

4. Avoided Traffic Congestion
- Highway and detour incentives reduced congestion caused by local road use for P&R parking access.
- The average number of passengers per car was 3.6, exceeding the expected 3.2, as the fee was not related to numbers of passengers. This resulted in improved traffic efficiency.
- The Yodogawa Left Bank Line (2nd phase) served as a major route for buses and taxis, resulting in time savings and on-time operation.
- No traffic congestion occurred due to cars searching for vacant parking spaces, nor were station shuttle buses delayed.

5. Traffic Restrictions, etc.
- Traffic restrictions, handled by security officers, such as a no parking rule and road closures on major roads on Yumeshima near the Expo site ensured safe and smooth transport.
- Thorough ID verification of Expo transport vehicles and control of vehicles entering Transportation Terminals ensured the smooth operation of shuttle buses, etc.

6. Minimisation of Road Construction Work on Shuttle Bus Routes
- Road construction work was minimised on shuttle bus routes to ensure on-time bus service.

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7. Bicycle Use
- Yumeshima Bicycle Parking, connected to the Yodogawa Riverside Cycling Road, etc. was used by approx. 20,000 bicycles.

8. Water transportation [Figure 9]
- About 115,000 passengers used water transportation. The introduction of priority entry lanes after end of June and extended floating pier hours (until 10 PM) increased users, with reservations fully booked at the end of the Expo.

9. New Transport Technology Initiatives

1) Self Driving Buses
- Some shuttle buses conducted autonomous driving demonstrations in commercial operation.

2) Effective Operation of Electric Buses
- Electric buses were used for the Sakurajima Station shuttle buses and Maishima P&R shuttle buses to promote zero-emission mobility.

3) Hydrogen Fuel Cell Ships
- Operated the zero-carbon hydrogen fuel cell ship “Mahoroba”.

10. Preventing Large Baggage
- Temporary luggage storage was placed at Sakurajima Sta. Bus Terminal and Bentencho Sta..

11. Traffic Guidance
- Visitors were guided safely and smoothly through standardised and unified design.

Ⅵ. Transportation Operations during the Expo

1. Visitor Transportation Information Centre
- A shift rotation system and the placement of liaison officers at related organisations, ensured rapid information sharing and communication.
- Real-time monitoring of the site situation by cameras set up at Expo P&R parking and Yumeshima Transportation Terminals enabled prompt response.

2. Visitor Guidance at the East Gate
- Communication between Osaka Metro and the Association about crowd conditions, ensured safe and smooth visitor movement from Yumeshima Station to the East Entrance Plaza.

3. Visitor Guidance at the West Gate
- Cooperation with Site Management ensured safe and smooth visitor guidance to deal with the high demand for shuttle buses, group buses, taxis, etc. in the morning and evening.
- Station shuttle buses except for Sakurajima Station were reservation-only all day. Information on availability was provided via announcements at the terminals and staff at the West Gate.

4. Operation of Yumeshima Transportation Terminals
- Shuttle bus and taxi stands were separated and waiting space flexibly organised on demand.
- Boarding queues were organised and shuttle buses efficiently dispatched to ensure efficient and safe boarding.
- Ramps and dedicated spaces were prepared for wheelchair and pushchair users.
- Passengers were guided to the P&R shuttle bus according to their reservation times.
- Separate taxi stands for regular and app services ensured safe, smooth pickup and drop-off.

5. Visitor Guidance at Major Stations
- Visitors were safely and appropriately guided via designated routes, etc. at stations where crowd control was particularly needed.

6. Operation of Expo P&R Parking
- P&R parking was opened earlier to manage queues of cars waiting on surrounding roads.

7. Operation of Yumeshima Accessible Parking
- Reservations were filled before the halfway point of the Expo period, so additional parking spaces for people with disabilities were provided at Maishima P&R parking.
- Appropriate usage was confirmed on-site.

8. Monitoring System
- Cameras were set up at Expo P&R parking and Transportation Terminals to monitor congestion.

9. Handling of lost items
- 11 Transportation Bureau facilities handled 5,381 lost items, managed centrally at the Lost and Found Centre.

Ⅶ. Response to Disasters and Other Emergencies

- 22 April: Osaka Metro Chuo Line service disruption. About 4,000 people temporarily stayed at Yumeshima Station.
- 28 June: Fireworks Display. About 100 people were left at the Sakurajima Station shuttle bus stop.
- 30 July: Tsunami caused by an earthquake near the Kamchatka Peninsula. About 120 users were evacuated from the Amagasaki P&R parking.
- 13 Aug: Osaka Metro Chuo Line service disruption. About 38,000 people stayed at the Expo site. Alternative transport was provided through extra Sakurajima Station shuttle buses, late-night operation and 59 emergency buses by Osaka Metro, extra JR trains, and taxies.

Conclusion

- Cooperation from members of the Visitor Transportation Measures Council and related parties realised the safe transport of 29 million visitors - up to about 248,000 a day.
- We express our gratitude to all those who contributed to the Expo, and hope this report will be useful for future discussions and research in the field of transport.

Overview of “Expo 2025 Osaka, Kansai, Japan Visitor Transportation Performance Report” (Back)

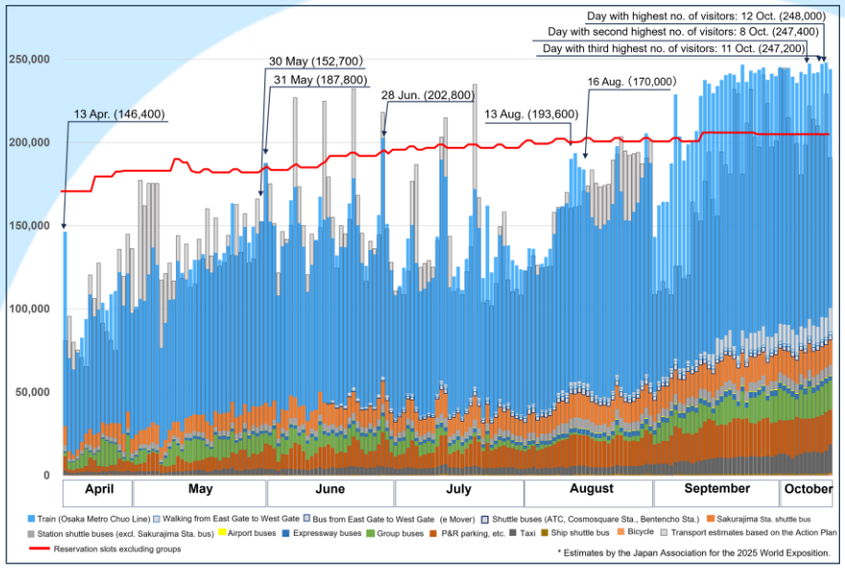

Figure 1: Visitor Transport Results (13 April - 13 October)

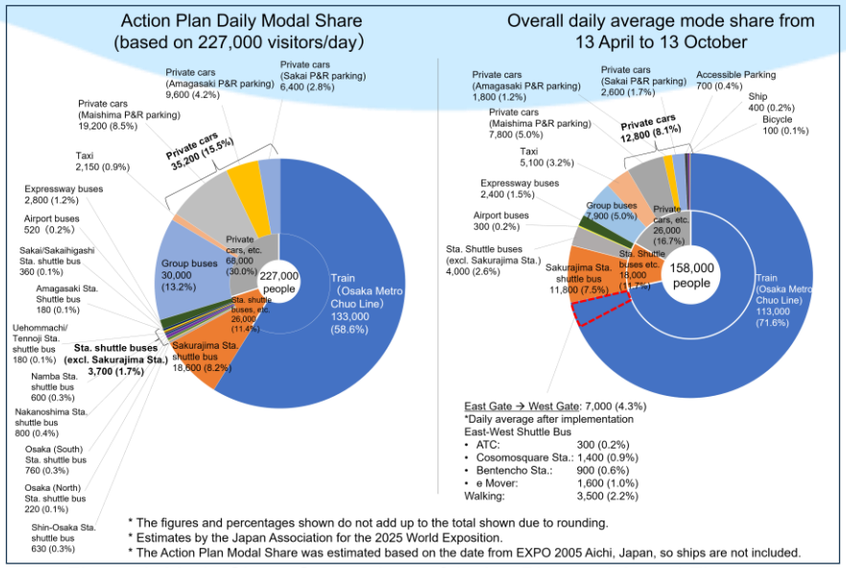

Figure 4: Mode Share Comparison of Action Plan and Actual Figures

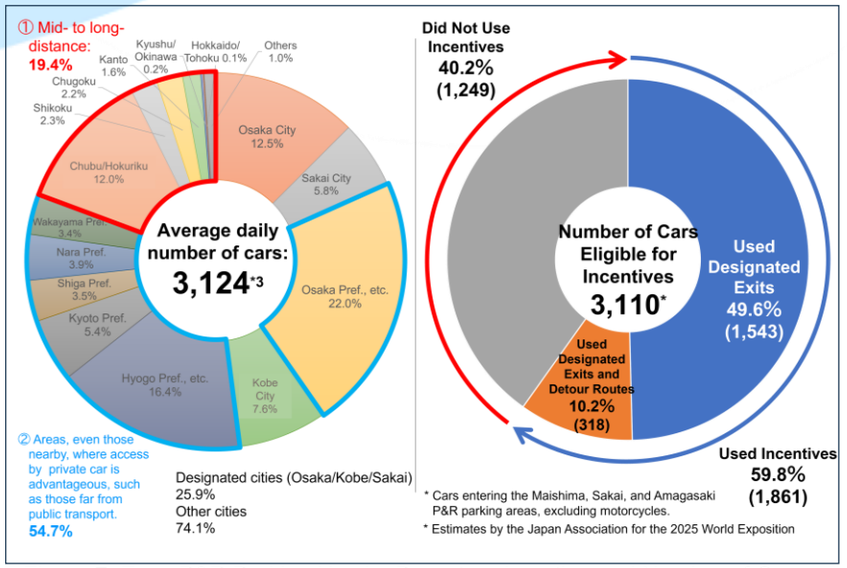

Figure 7: Expo P&R Parking Use by Departure Location and Number of Cars that Used Highway Incentives（Daily average during the Expo）

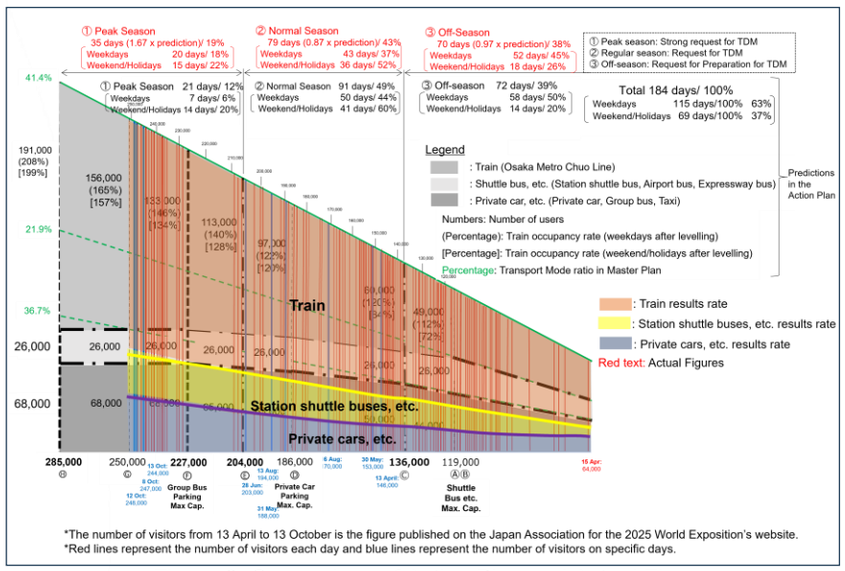

Figure 2: Comparison of Action Plan and Actual Figures
- Trends in Daily Visitor Number and Mode Share-

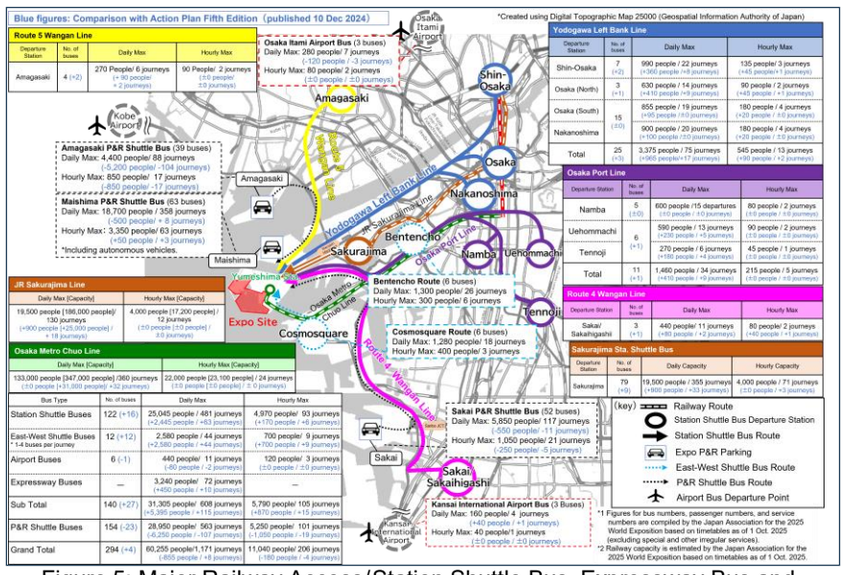

Figure 5: Major Railway Access/Station Shuttle Bus, Expressway Bus and Airport Bus Plan

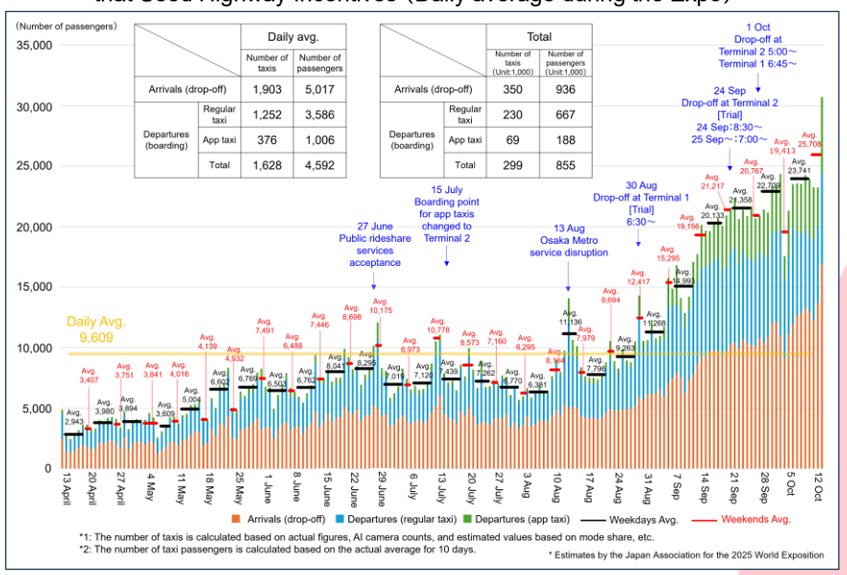

Figure 8: Estimated Number of Taxi Passengers（daily, by arrival and departure)

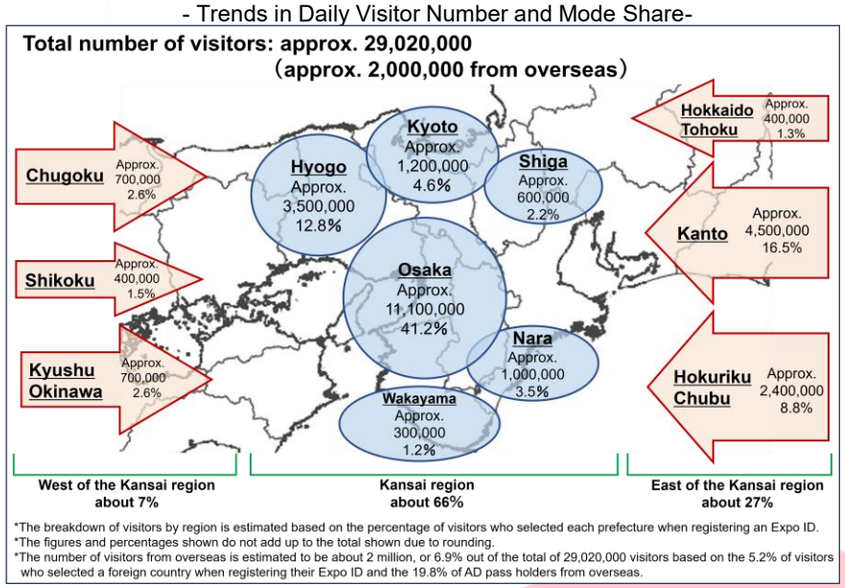

Figure 3: Breakdown of Visitors by Region

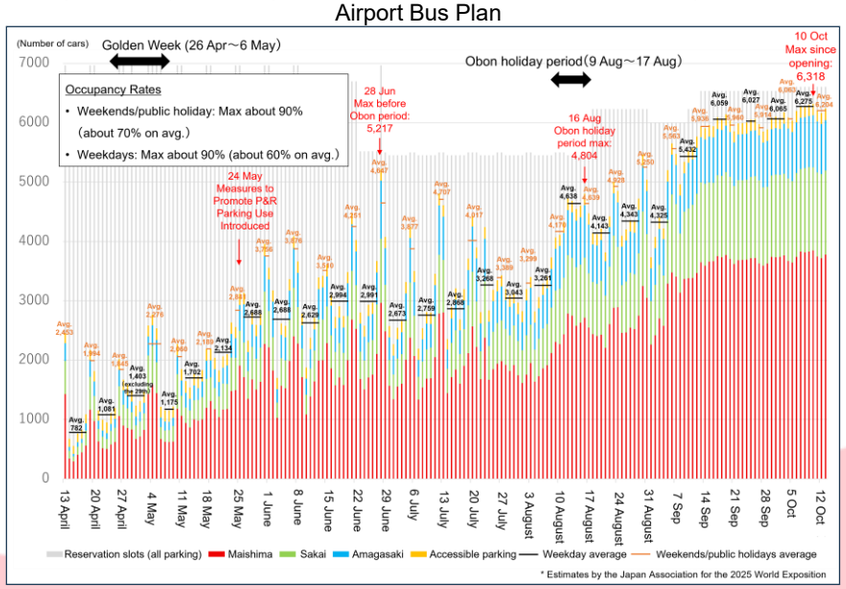

Figure 6: Daily Usage of Expo P&R Parking, etc.

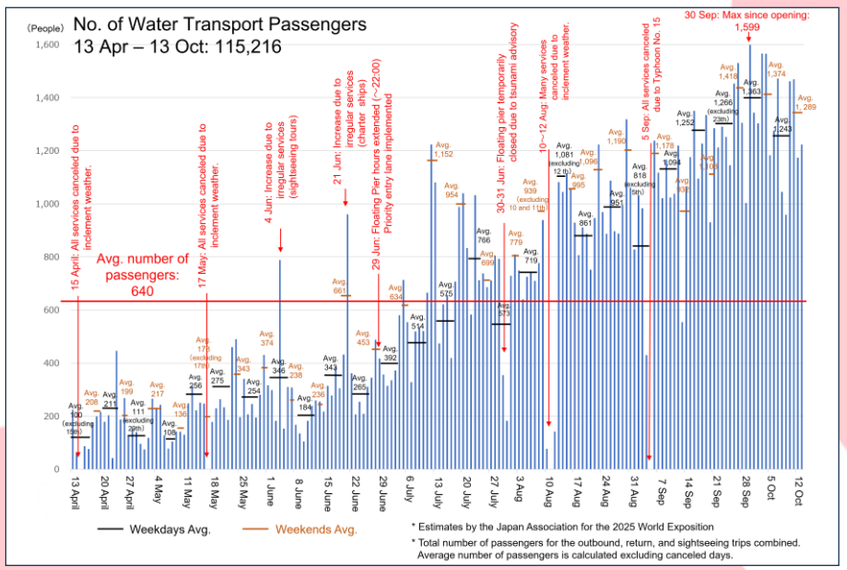

Figure 9: Water Transportation Usage