

# Bridge Technology to Enhance Disaster Resilience

Japan Bridge Association is an organization established by 30 leading steel bridge manufacturers in Japan. We are contributing to society through the construction and maintenance of steel bridges in the world.

Technologies de ponts renforçant la résilience face aux catastrophes

L'Association des constructeurs de ponts du Japon (Japan Bridge Association) est une organisation qui regroupe 30 acteurs de premier plan du secteur des ponts en acier dans ce pays.

Nous contribuons à la société en construisant et en entretenant des ponts en acier à travers le monde.

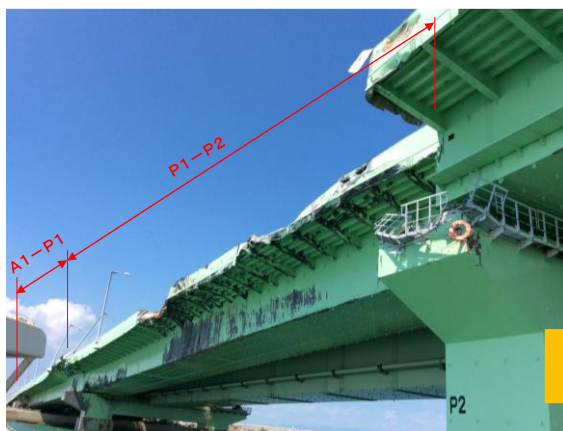


## Technology for the early restoration of disaster-damaged long-span bridges

### ■ Sky Gate Bridge R

The Sky Gate Bridge R is an important transportation infrastructure that links Kansai International Airport with major cities in the Kansai region, such as Osaka, Kyoto, and Kobe. In September 2018, a 2,600-ton tanker collided with a bridge pier due to strong winds caused by Typhoon No. 21. The collision caused major damage, including bearing damage, girder slip, collision with the railway bridge, steel deck cantilever damage, and damage to some facilities on the bridge.

The restoration work was estimated to take about 18 months based on a typical construction schedule, but full restoration was completed in only 5.4 months.



Construction companies:  
IHI Infrastructure Systems and Takada Kiko



# Bridge Technology to Enhance Disaster Resilience

Japan Bridge Association is an organization established by 30 leading steel bridge manufacturers in Japan. We are contributing to society through the construction and maintenance of steel bridges in the world.

Technologies de ponts renforçant la résilience face aux catastrophes

L'Association des constructeurs de ponts du Japon (Japan Bridge Association) est une organisation qui regroupe 30 acteurs de premier plan du secteur des ponts en acier dans ce pays.

Nous contribuons à la société en construisant et en entretenant des ponts en acier à travers le monde.



## Maintenance to extend the service life of bridge structures

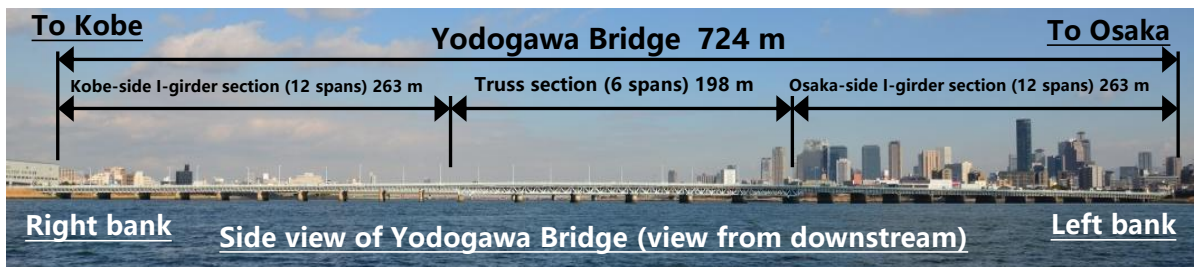
### ■ Yodogawa Bridge

The Yodogawa Bridge is a 724-m-long I-girder Warren truss bridge spanning the lower reaches of the Yodo River in the city of Osaka.

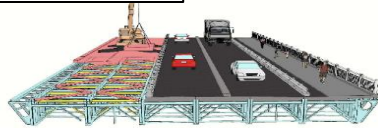
Completed in 1926, the bridge is a 97-year-old bridge as of this writing.

Even today, the Yodogawa Bridge is an arterial route in Osaka City with an average daily traffic of about 35,000 vehicles.

Periodic inspections revealed that the reinforced concrete deck slabs of the bridge are heavily damaged. In response to the local business community's request to minimize the impact of a road closure on economic activities, the construction work was divided into three phases, and the work was completed in about three years while maintaining a limited traffic capacity.



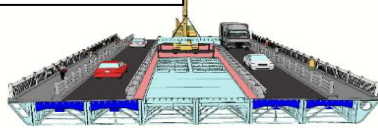
Phase 1 work



Phase 2 work



Phase 3 work



Construction steps



Construction companies:  
IHI Infrastructure Systems  
and Yokogawa NS Engineering



# Steel Bridges in Japan

Japan Bridge Association is an organization established by 30 leading steel bridge manufacturers in Japan.  
We are contributing to society through the construction and maintenance of steel bridges in the world.

## Ponts en acier au Japon

L'Association des constructeurs de ponts du Japon (Japan Bridge Association) est une organisation qui regroupe 30 acteurs de premier plan du secteur des ponts en acier dans ce pays.  
Nous contribuons à la société en construisant et en entretenant des ponts en acier à travers le monde.



### ■ Tokyo Gate Bridge

Type of bridge: Truss bridge

Bridge length: 792 m

Steel weight: 20,734 tons

Location: Aomi, Koto Ward, Tokyo



### ■ Akashi Kaikyo Bridge

Type of bridge: Suspension bridge

Bridge length: 3,910 m

Steel weight: 136,200 tons

Location: Between Kobe City and Awaji Town of Tsuna County in Hyogo Prefecture



# Steel Bridges in Japan

Japan Bridge Association is an organization established by 30 leading steel bridge manufacturers in Japan.  
We are contributing to society through the construction and maintenance of steel bridges in the world.

## Ponts en acier au Japon

L'Association des constructeurs de ponts du Japon (Japan Bridge Association) est une organisation qui regroupe 30 acteurs de premier plan du secteur des ponts en acier dans ce pays.  
Nous contribuons à la société en construisant et en entretenant des ponts en acier à travers le monde.



### Yokohama Bay Bridge

Type of bridge: Cable-stayed bridge  
Bridge length: 850 m  
Steel weight: 54,941 tons  
Location: Yokohama City, Kanagawa Prefecture



### Shinmachi-gawa Bridge

Type of bridge: Continuous box girder bridge  
Bridge length: 500 m  
Steel weight: 8,920 tons  
Location: Tokushima City, Tokushima Prefecture

