



July in 2018  
The operations  
From the outset of disasters  
to the emergency recovery

Our best  
to bring back normal daily lives  
as soon as practical



# By every conceivable means Map out disaster situation immediately

Chugoku Regional Development Bureau have captured the whole picture of damages by **Emergency response helicopter** since July 8.

We enumerated required demands based on detailed disaster lookout taken by UAV(drone), which provided **real time images** of miniature cameras via satellite communication equipment.



Real time observation  
by a satellite communication equipment(Ku-SAT II)



Investigation of disaster situation  
by drone



Real time observation  
by a satellite communication car



# TEC-FORCE operation

## mobilized from all around the nation

The personnel of TEC-FORCE corps mobilized for “the heavy rain disaster in July 2018” were **6,163 person-day**. (From July 5 to September 21)

This effort is ranked third next to “Great East Japan Earthquake of March 11, 2011” (18,115 person-day) and “the 2016 Kumamoto earthquake.” (10,912 person-day)



**TEC-FORCE carried out technical support immediately for early recovery in disaster stricken areas.**



【Ashidagawa River, Hiroshima】Survey of damage situation



【Yoshiura, Kure City, Hiroshima】Survey of sediment washout



【Shinjyo Town, Takehara City, Hiroshima】  
Survey of damage situation (July 9)



# Flooding was pumped back rivers around the clock

## Concerted deployment of drainage pump vehicle

Right on the day flood disaster occurred in July 7, we **massed drainage pump vehicles** to Mabi Town, Kurashiki City, Okayama from all around the nation. We managed to start the drainage operation, keeping up day-in and day-out, by 23 fleets since July 8, and accomplished its operation on July 11.

The amount of drained flood water was not less than 700,000m<sup>3</sup>.

This is about 2,000 times as much as 25m swimming pool.



【Mabi Town, Kurashiki City, Okayama】  
The drainage operations were put in place.





# Reopen the roads for a recovery Team formation and road clean-ups in Mabi

There were left-out cars and huge amount of sediment on roads in flood areas after levees failure.

We formed a team, “TEC-FORCE: road clean-ups in Mabi Town” in two days after levee failure, and started to reopen community roads as emergency flood water pump out operations were finished.

At last, we were able to clean out sediment on highways in July 15.

Dispatching clean-up operation machines to flooded area to remove left-out automobiles and sediment from the areas as soon as practical.



【Mabi Town, Kurashiki City, Okayama】  
sediment heaps in a flood area



【Mabi Town, Kurashiki City, Okayama】  
removing operation of left out cars