

# An assessment on the transportation of artificial radionuclides arising from the Fukushima Nuclear Accident to Hong Kong

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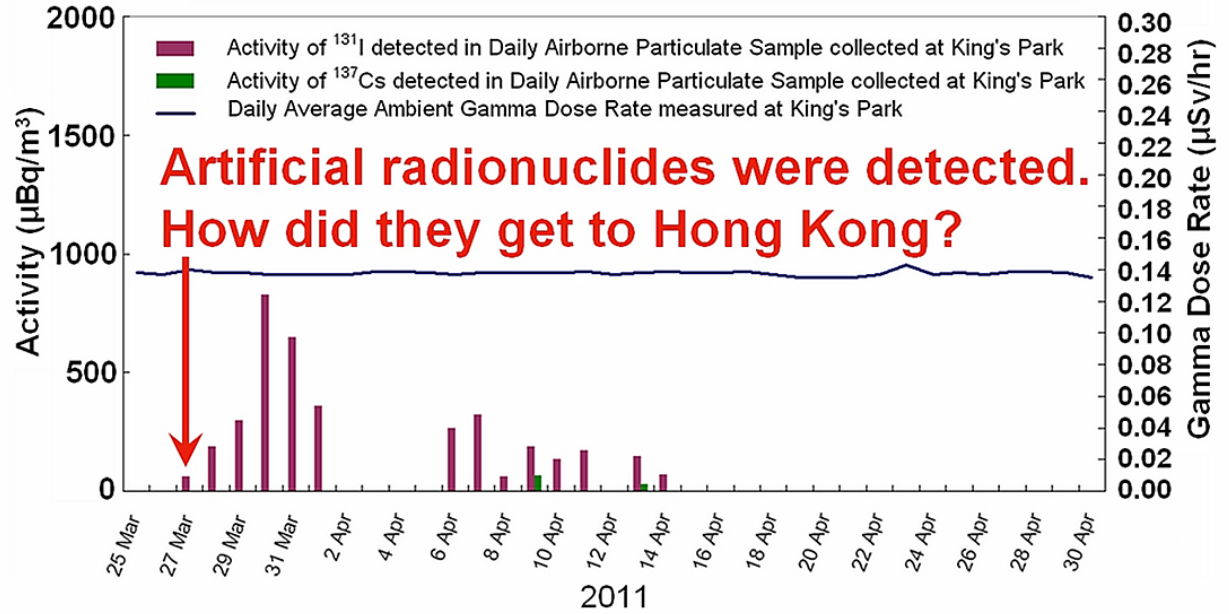
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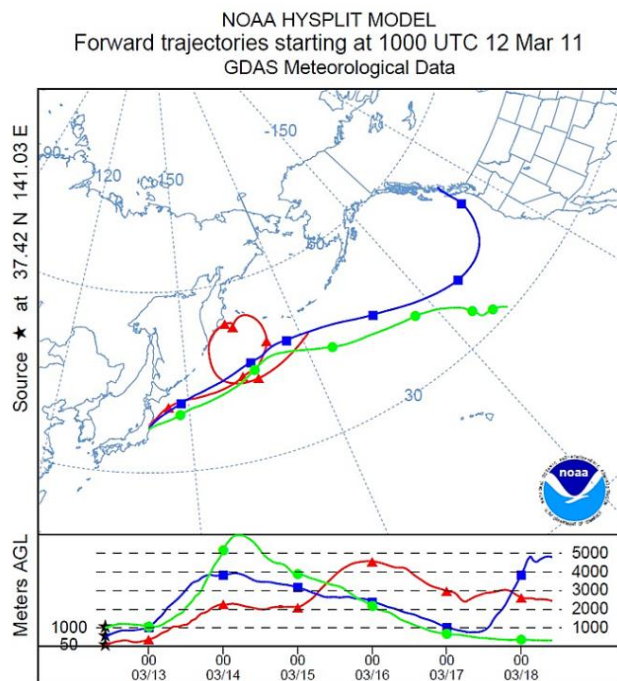
## Daily average ambient gamma dose rates measured and activity of $^{131}\text{I}$ and $^{137}\text{Cs}$ in daily airborne particulate samples collected at King's Park in Hong Kong from 25 March to 30 April 2011





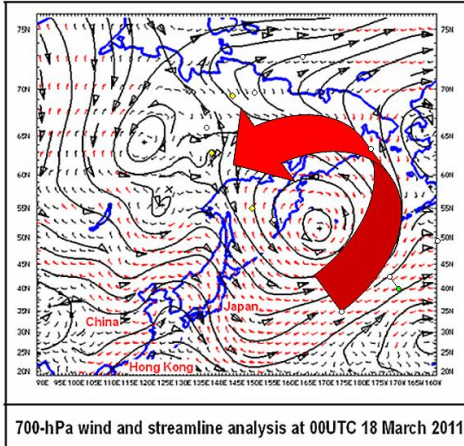
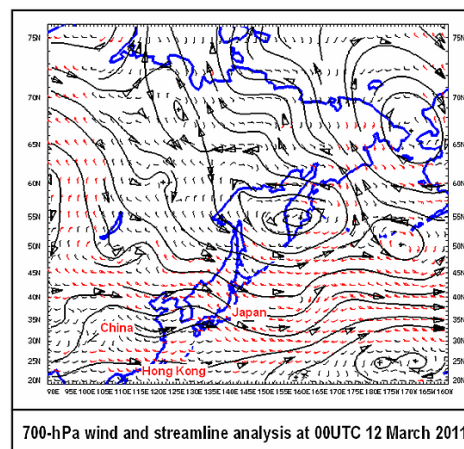
# Meteorological analysis and trajectories

## (1) Westerlies over the North Pacific

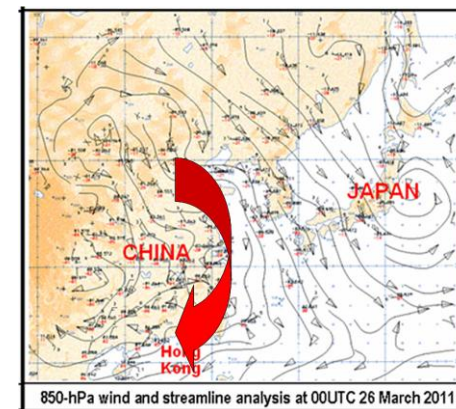


Trajectories of air masses released at heights of 50 m (red), 500 m (blue) and 1,000 m (green) from the Fukushima Daiichi nuclear power plant originating at 10 UTC 12 March 2011 as computed by the NOAA HYSPLIT model. (Source: NOAA HYSPLIT)

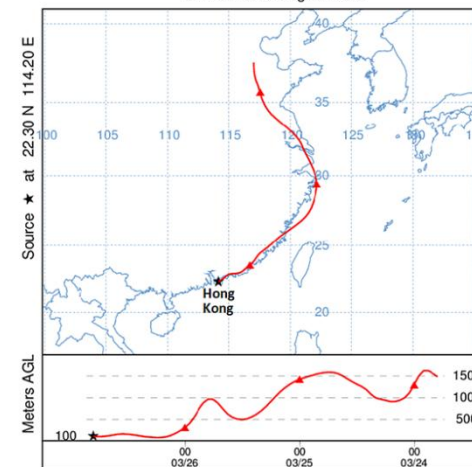
## (2) Intensification of a cyclonic system over the Bering Sea



## (3) Prevailing northeast monsoon



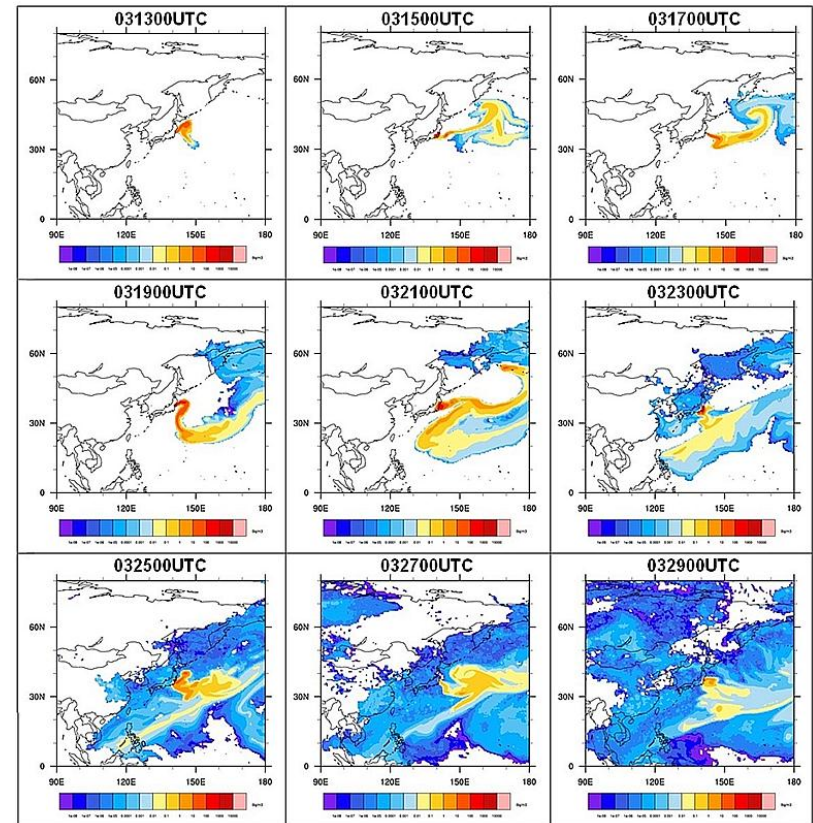
NOAA HYSPLIT MODEL  
Backward trajectory ending at 1900 UTC 26 Mar 11  
GDAS Meteorological Data



(Source: NOAA HYSPLIT)

# Dates of first detection of $^{131}\text{I}$ from airborne particulates originating from the Fukushima nuclear accident as detected by various places over Asia

# FLEXPART simulation of the spread of $^{131}\text{I}$ activity concentration over the western North Pacific and eastern Asia between 13 and 29 March 2011



(Source Term: Chino et al. (2011))



# The probable pathway for the first arrival of $^{131}\text{I}$ in Hong Kong arising from the Fukushima Nuclear Accident

