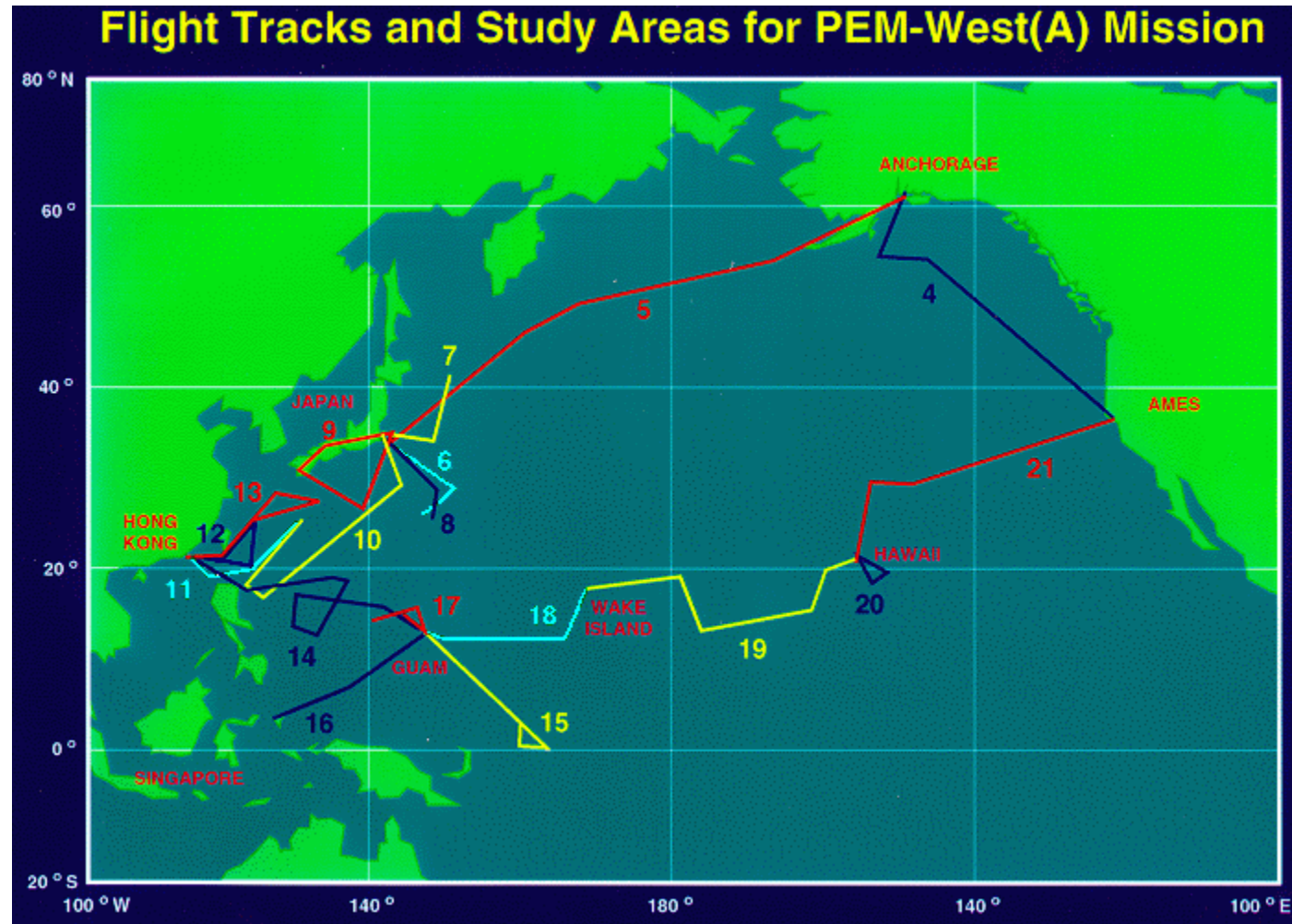




# PEM West A Flights



Select the flight number above to see the data plots for that flight.

Key: (na) = Not available.

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[Return to the GTE World Map](#)

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[A summary of the PEM West A mission](#) explains the reason for the mission, the methods used to gather data, and a synopsis of the results.

[Results of PEM West A.](#)

[More maps for PEM West A](#) are available containing airflow drawing and a chart of ground based measurement locations.

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## **Flight #4**

Purpose: Survey and ferry

Location: Ames to Anchorage

Date: Sept. 16, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O3, CO2(na), Methane, N2O(na), and Benzene
- [03](#) - Time series plots of NO, NOx(na), NOy, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C2C14, and CH3CC13
- [05](#) - Time series plots of SO2, DMS, Ethylene, H2O2, and CH3OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (1715 and 1930 GMT)
- [07](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (2130 GMT)

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## **Flight #5**

Purpose: Survey and ferry

Location: Anchorage to Yokota

Date: Sept. 17-18, 1991 (crossed international date line)

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>(na), Methane, N<sub>2</sub>O(na), and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>(na), NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (1900 and 2215 GMT)
- [07](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0300 GMT)

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## **Flight #6**

Purpose: Background marine air

Location: Yokota to Yokota

Date: Sept. 22, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O(na), and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0415 and 0830 GMT)

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## Flight #7

Purpose: Continental outflow

Location: Yokota to Yokota

Date: Sept. 24, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0300 and 0815 GMT)

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## Flight #8

Purpose: Diurnal photochemistry

Location: Yokota to Yokota

Date: Sept. 25-26, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (1930 and 2200 GMT)

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## Flight #9

Purpose: Typhoon Mireille

Location: Yokota to Yokota

Date: Sept. 27, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0400 and 0730 GMT)

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## Flight #10

Purpose: Survey and ferry

Location: Yokota to Okinawa

Date: Oct. 1, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0300 and 0700 GMT)

- [07](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0915 GMT)

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#### **Flight #11**

Purpose: Survey and ferry

Location: Okinawa to Hong Kong

Date: Oct. 2, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS(na), Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0015 and 0215 GMT)

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#### **Flight #12**

Purpose: Continental outflow and Tiwan flyby

Location: Hong Kong to Hong Kong

Date: Oct. 4, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid

- [04](#) - Time series plots of Acetylene, Ethane, Propane, C2C14, and CH3CC13
- [05](#) - Time series plots of SO2, DMS, Ethylene, H2O2, and CH3OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0900 GMT)

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#### **Flight #13**

Purpose: Continental outflow

Location: Hong Kong to Hong Kong

Date: Oct. 6, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O3, CO2, Methane, N2O, and Benzene
- [03](#) - Time series plots of NO, NOx, NOy, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C2C14, and CH3CC13
- [05](#) - Time series plots of SO2, DMS, Ethylene, H2O2, and CH3OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0445 and 0645 GMT)

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#### **Flight #14**

Purpose: Survey and ferry, typhoon Orchid

Location: Hong Kong to Guam

Date: Oct. 8, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta

- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0200 and 0700 GMT)
- [07](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0945 GMT)

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### **Flight #15**

Purpose: Marine, southeast of Guam

Location: Guam to Guam

Date: Oct. 11-12, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0315 and 0715 GMT)

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### **Flight #16**

Purpose: Marine, southeast of Guam

Location: Guam to Guam

Date: Oct. 13, 1991

### Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0400 and 0800 GMT)

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### Flight #17

Purpose: Diurnal photochemistry, west of Guam

Location: Guam to Guam

Date: Oct. 14-15, 1991

### Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (2015 and 2300 GMT)
- [07](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0200 GMT)

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### Flight #18

Purpose: Survey and ferry

Location: Guam to Wake Island

Date: Oct. 17-18, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid(na)
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0115 and 0230 GMT)
- [07](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0330 GMT)

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## **Flight #19**

Purpose: Survey and ferry

Location: Wake Island to Hawaii

Date: Oct. 18-19, 1991 (crossed international date line)

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O<sub>3</sub>, CO<sub>2</sub>, Methane, N<sub>2</sub>O, and Benzene
- [03](#) - Time series plots of NO, NO<sub>x</sub>, NO<sub>y</sub>, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C<sub>2</sub>C<sub>14</sub>, and CH<sub>3</sub>CC<sub>13</sub>
- [05](#) - Time series plots of SO<sub>2</sub>, DMS, Ethylene, H<sub>2</sub>O<sub>2</sub>, and CH<sub>3</sub>OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (0100 and 0315 GMT)

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## Flight #20

Purpose: Intercomparison with Mauna Loa Observatory ground measurements

Location: Hawaii to Hawaii

Date: Oct. 20, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O3, CO2, Methane, N2O, and Benzene
- [03](#) - Time series plots of NO, NOx, NOy, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C2C14, and CH3CC13
- [05](#) - Time series plots of SO2, DMS, Ethylene, H2O2, and CH3OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (1545 GMT)

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## Flight #21

Purpose: Survey and ferry

Location: Hawaii to Ames

Date: Oct. 21, 1991

Plots:

- [01](#) - Map and Time series plots of alt, temp, humidity, and theta
- [02](#) - Time series plots of O3, CO2, Methane, N2O, and Benzene
- [03](#) - Time series plots of NO, NOx, NOy, PAN, and Nitric Acid
- [04](#) - Time series plots of Acetylene, Ethane, Propane, C2C14, and CH3CC13
- [05](#) - Time series plots of SO2, DMS, Ethylene, H2O2, and CH3OOH
- [06](#) - Altitude vs. Temp, Dewpoint, Ozone, CO, Methane (1930 GMT)

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