

A Network of Networks: A Vision for APEC

Goals for this Meeting

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The Asia Pacific Economic Community

- **Accomplishments in combating emerging infections**
- **Challenges that remain**
- **Networking as a part of our strategy**
- **Goals of this meeting**

APEC Leaders Summit, October 2001, Beijing



Countdown to Beijing

- **1995 Beijing, 9th ISTWG-EID introduced**
- **1997 Singapore, 13th ISTWG EINET, Influenza surveillance**
- **1998 Taipei, 14th ISTWG, EID Framework, E Coli.**
- **1999 Seattle, 17th ISTWG Enteroviral Watch, Surveillance and Response, GC**
- **2000, Brunei, Leaders Meeting-Report Requested**
- **2001, Hanoi, 20th ISTWG, Dengue, HIV business forum**

Infectious Diseases: A Reason to Act, Acting with Reason

- Rationale for action:
- Human suffering
- Trade consequences
- Economic losses
- COST
- EFFECTIVENESS OF RESPONSE
- Acting with reason
- Complement ongoing global efforts
- Strategic action areas for economies to pursue

Six Strategic Action Areas

- **Electronic networking**
- **Surveillance**
- **Outbreak response**
- **Capacity building**
- **Partnering across sectors**
- **Political and economic leadership**

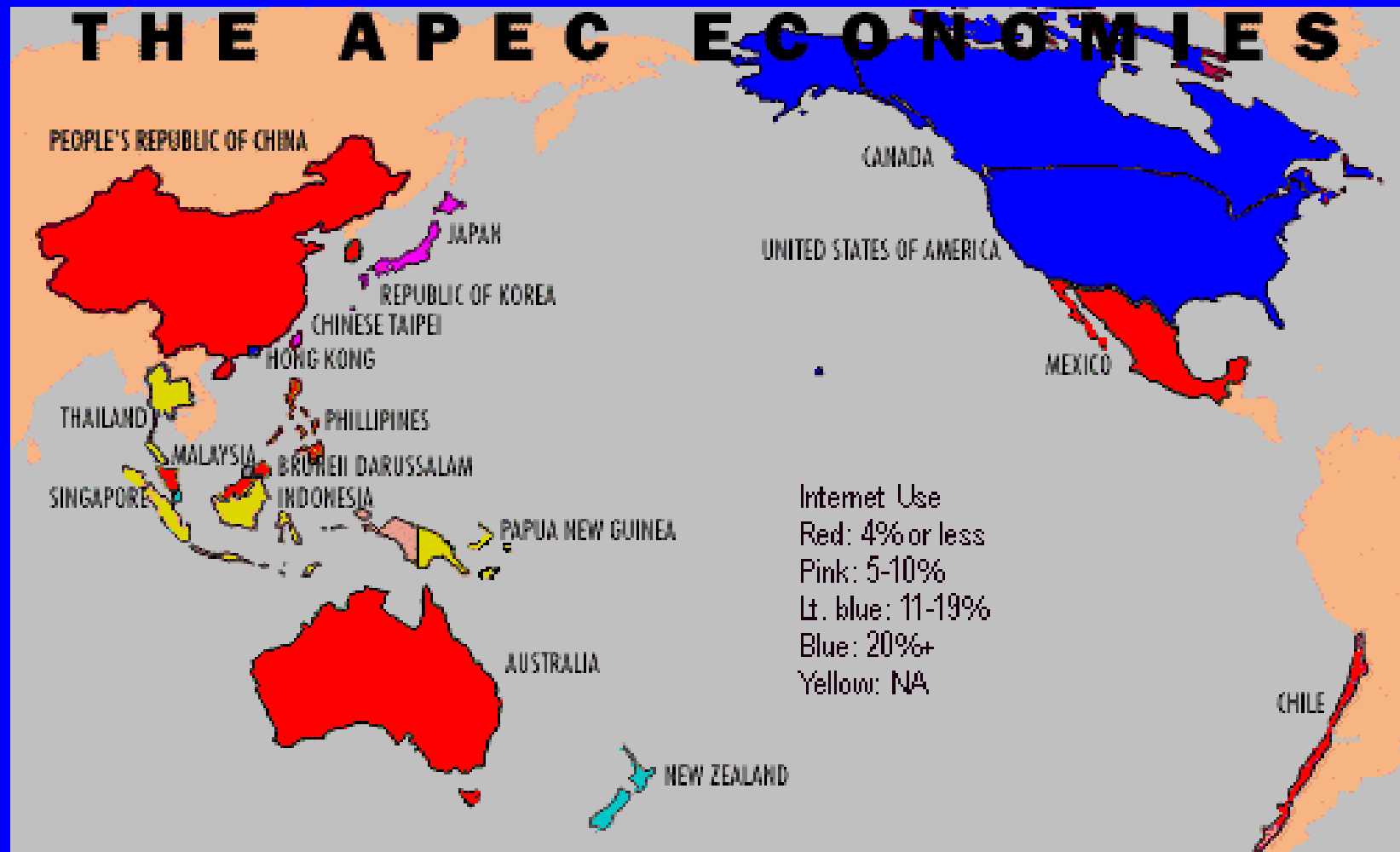
Asia-Pacific outbreaks, 1998-99



Data source: ESRI Base Maps Set 1997 Geographic (unprojected)

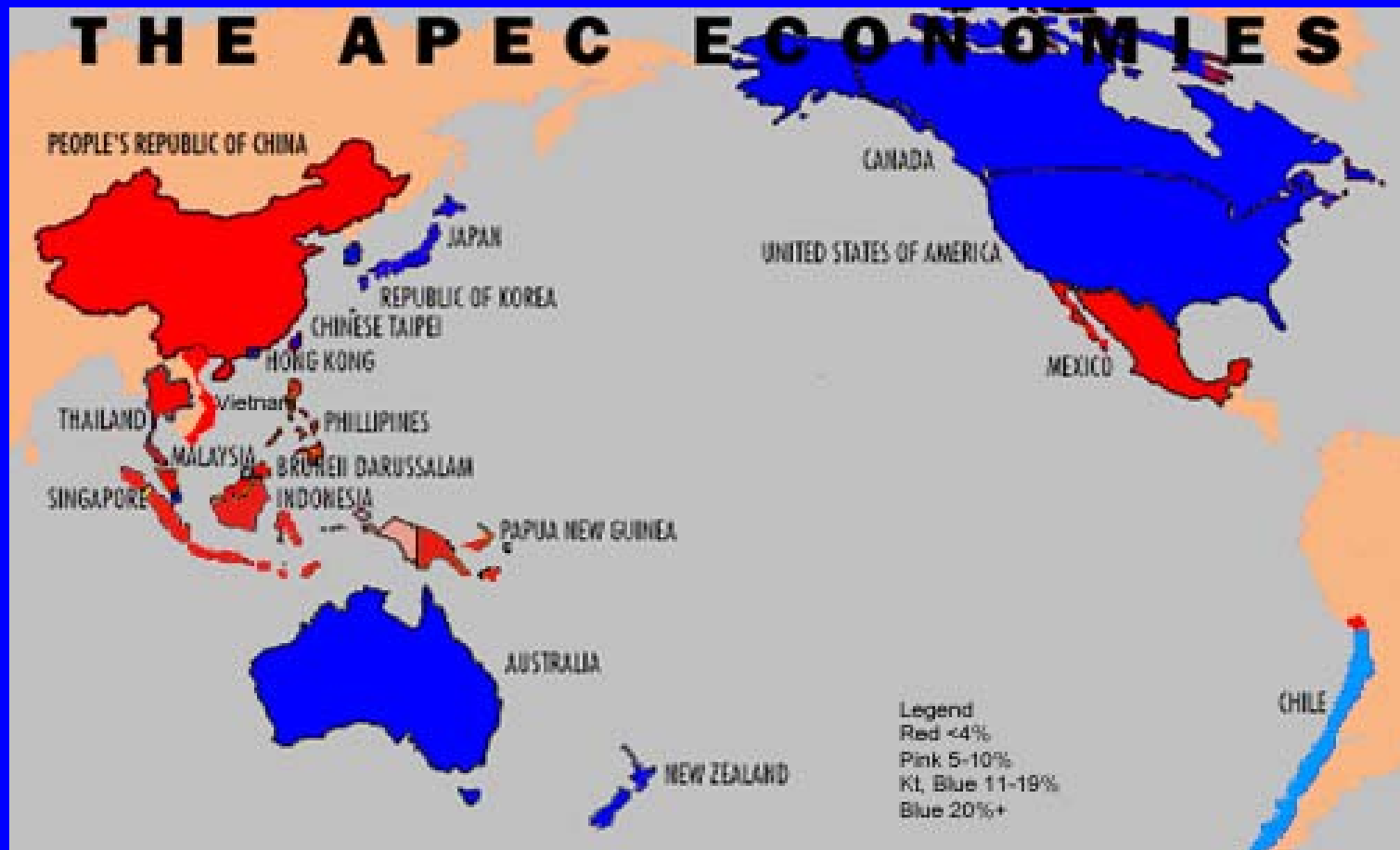
Internet Use in APEC Economies 1997

Source: Nua Ltd. and others, 1997, http://www.nua.ie/surveys/how_many_online



Internet Use in APEC Economies 1999-2001

Source: Nua Ltd. and others, 2001, http://www.nua.ie/surveys/how_many_online



Inter-country Surveillance Network



APEC Emerging Infections Network: Project Overview

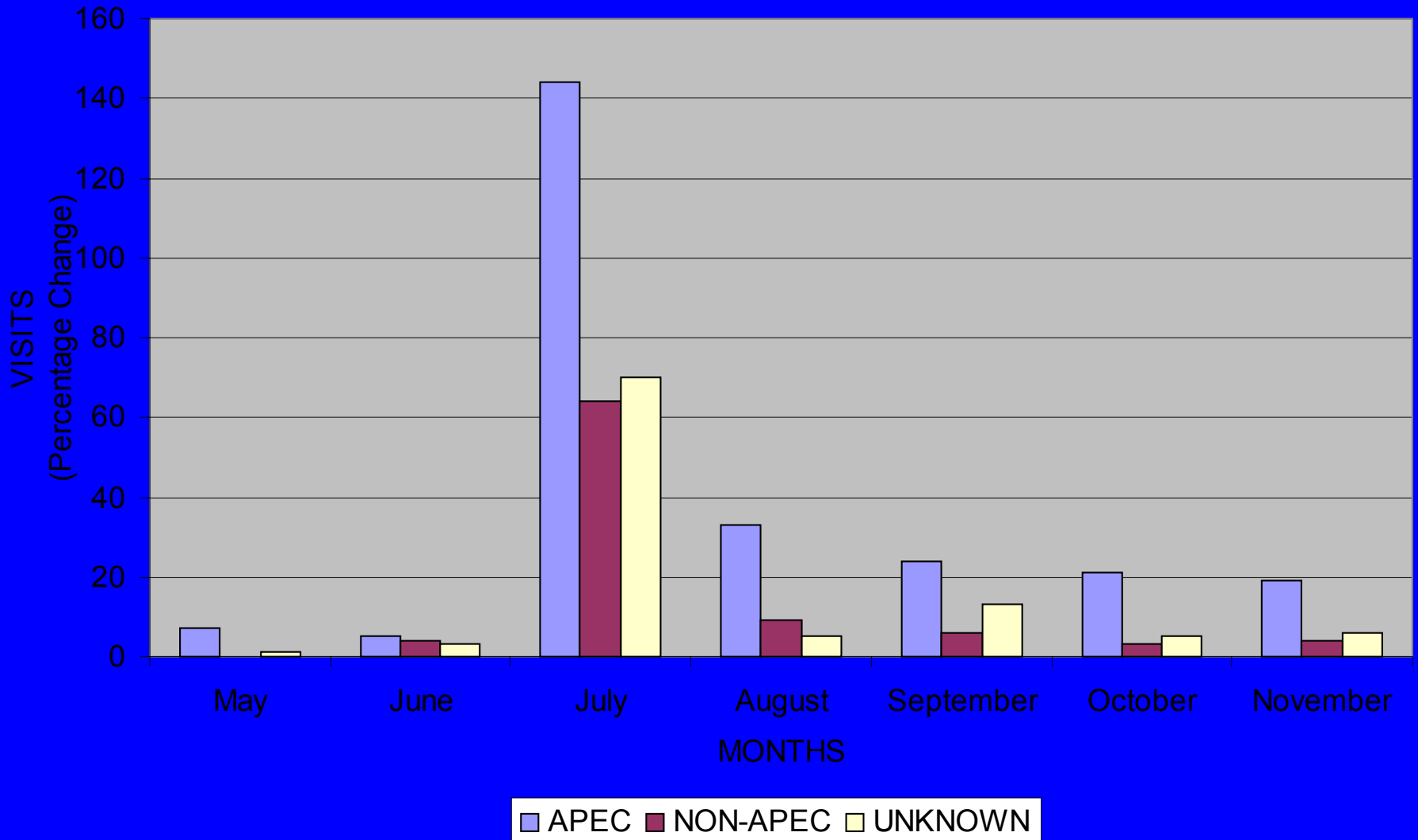
Activities:

- Listserv**
- Technical Assistance**
- Surveillance**
- Teaching**

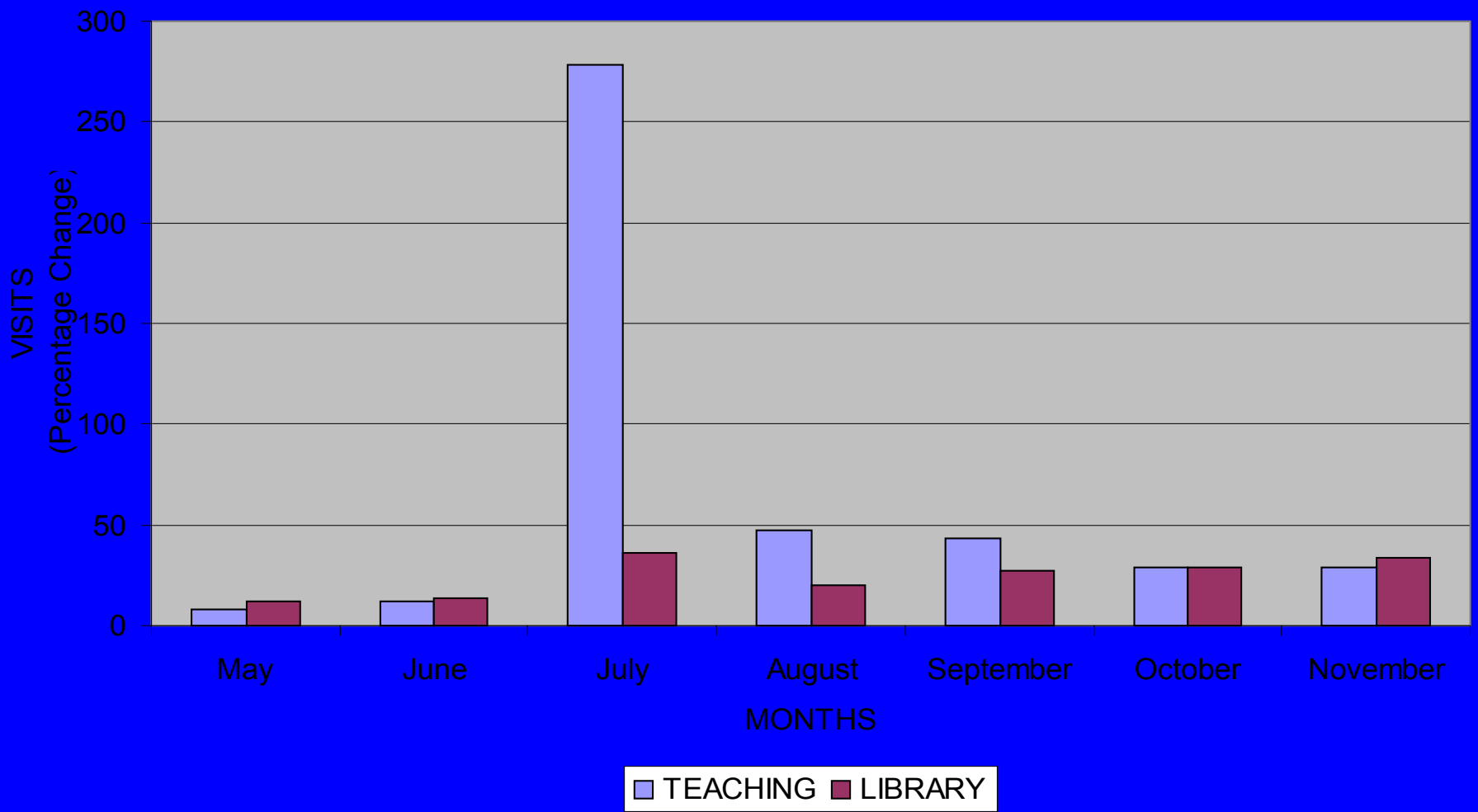
Website Monitoring.1999

- **Use of multiple software packages to analyze server statistics**
- **Documented response to introduction of new distance learning materials**
- **Documented geographic breadth of response.**

VISITS TO APEC/INFECTIOUS TEACHING



VISITS TO APEC/INFECTIOUS TEACHING AND LIBRARY PAGES



Weather
Cloudy with showers today and tonight.
High: 56; Low: 43.
D 14

The Seattle Times

MAY 5, 2000
CITY EDITION
50¢
PUBLISHED DAILY
736 4th Avenue

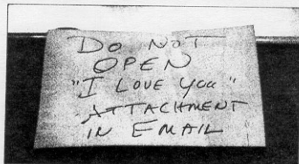
'Love bug' hits with a vengeance

State: 'Most agencies still in triage mode,' after up to 10,000 of its PCs infected by virus

SEATTLE TIMES STAFF
Computer technicians around the nation are in a mopping-up mode today, cleaning up the mess visited upon millions of PCs by a computer bug.
Lesson for the day: Not everyone who says they love you does.
Some of the region's largest business and government computers were hit yesterday by a virus and worm spread through e-mails titled "I love you," disabling entire computer systems in some instances.

And picking up after it won't be cheap.
Mike McVicker, assistant director of the state Department of Information Services, said he won't know until next week the full extent of the damage done to state agency computers. But he said he heard up to 20 percent of the state's estimated 50,000 PCs were infected — as many as 10,000 in all.
It is taking technicians about an hour

PLEASE SEE *Love bug* ON A 18



At Northwest Link, an Internet company in Bellevue, the word was out to stay away from "love."

Nation and world: Fastest-replicating virus ever seen is 'almost like Melissa on steroids'

By CHARLES FILLER and GREG MILLER
Los Angeles Times

The extremely disruptive computer virus dubbed "ILOVEYOU" — possibly launched from the Philippines — raced across the Internet on Wednesday and yesterday and infected computers in about two dozen countries.
Unlike last year's Melissa virus that penetrated millions of computers and caused some \$300 million in damage, the "Love Bug" virus is spreading faster and can destroy a wide variety of

computer files.
"The way we look at the I Love You virus is it's almost like Melissa on steroids," said Srivats Sampath, president and chief executive of security firm McAfee.com, a division of Network Associates. "It's the fastest-propagating virus we've seen."
The Love Bug seeks out files in such formats as .jpg and .mp3 — used for images and music — and replicates

PLEASE SEE *Virus* ON A 18

Seattle Post-Intelligencer

THE VOICE OF THE NORTHWEST SINCE 1863

A DAILY NEWSPAPER

Friday morning • May 5, 2000

50¢ Seattle and Puget Sound region

PERFORMS-NEWSPAPERS
UNIV. OF WASHINGTON

'Love bug' smites world's computers

E-mail systems shut down

BY STAFF AND NEWS SERVICES

From Britain's House of Commons to the Snohomish County Sheriff's Office, from Ford to Boeing, Safeco and even Microsoft, a malicious computer program disguised as a love letter yesterday forced e-mail shutdowns around the world.

The outbreak caused an estimated \$1 billion of damage in North America alone.

To defend themselves from the rogue program, borne by an e-mail message proclaiming "ILOVEYOU," thousands of corporations, governments and other organizations unhooked computer systems from the Internet and began a laborious process of purging the program internally.

Underscoring how interconnected the world's personal computers have become, the program made its impact felt at the White House, Pentagon, Congress and House of Commons. At Ford, one of the corporations hit first and hardest, security chiefs kept the e-mail system offline for much of the day.

Reactions to the attack varied widely among Seattle-area concerns. Some took minimal precautions, others shut down their computer systems entirely. All said they expect operations to resume normally today, though some long-term effects may take longer to assess and correct.

Computer security experts said the program was first identified in Asia on Wednesday and might have been created in the

See *LOVE BUG*, Page A14



The New York Times



May 5, 2000

A Rogue Software Program Attacks Computers Worldwide

By JOHN MARKOFF

A rogue software program, borne by an e-mail message proclaiming "I love you," propelled itself around the world yesterday, jamming and crashing e-mail systems and destroying data on hundreds of thousands of computers.

To defend themselves, thousands of corporations unhooked their computer systems from the Internet and began a laborious process of purging the program internally.

Underscoring how interconnected the world's personal computers have become, the program also made its impact felt in government agencies including the White House, the Pentagon, Congress and the British House of Commons.

At Ford Motor, one of the corporations hit

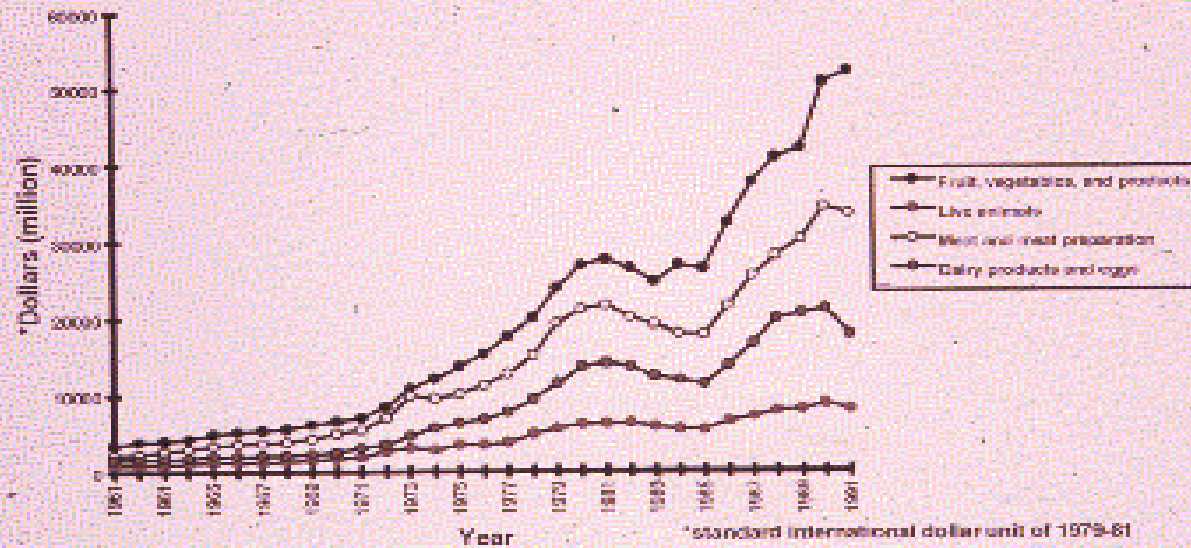
Related Articles

• **Viruses and Their Cures: Year 2000 and Beyond**
(Dec. 16, 1999)

• **The Anarchic Lure of Virus Writing**
(April 3, 1999)

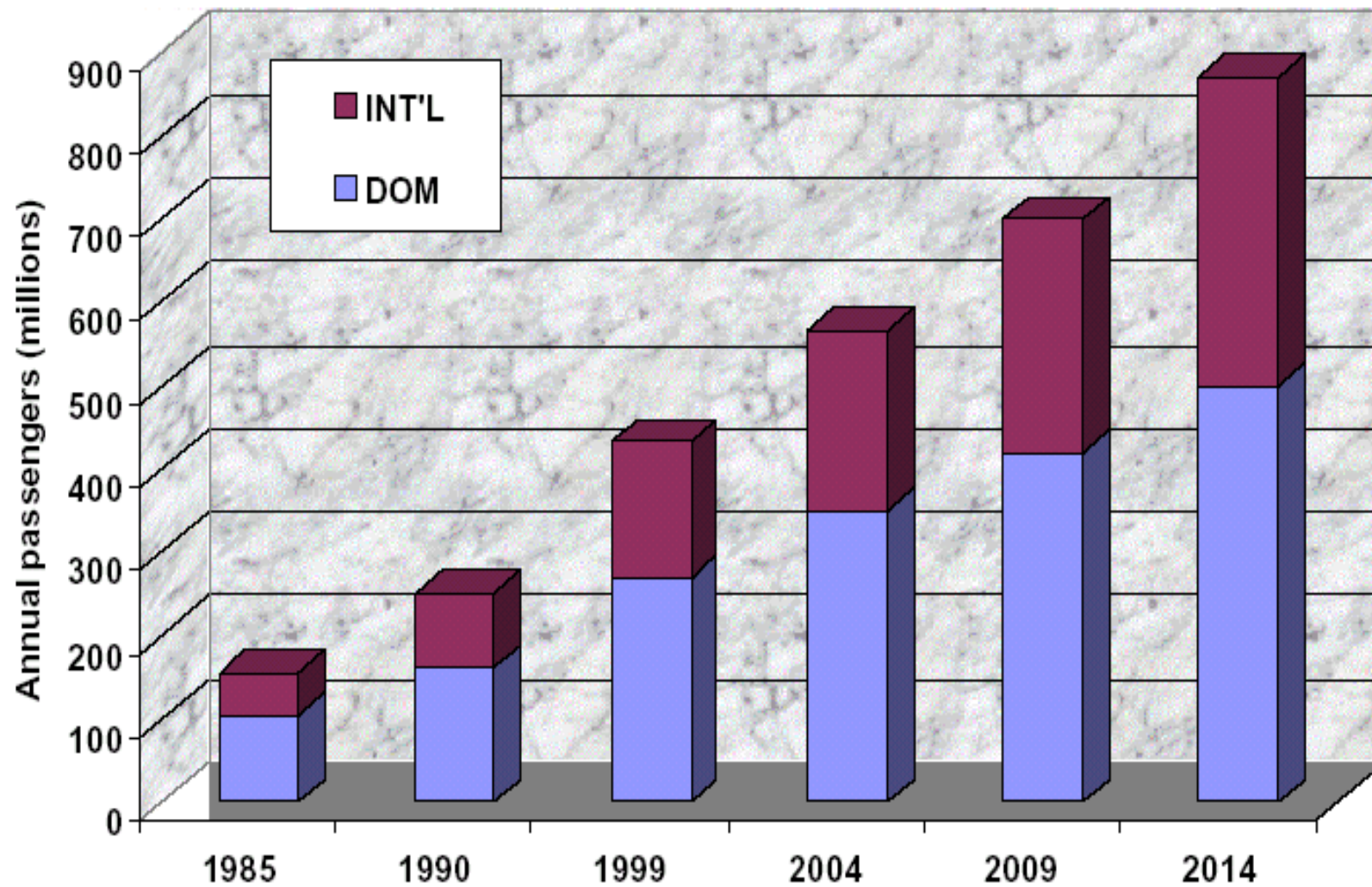
• **New Fast-Spreading Virus Takes Internet by Storm**
(March 28, 1999)

International Trade and Agricultural Products

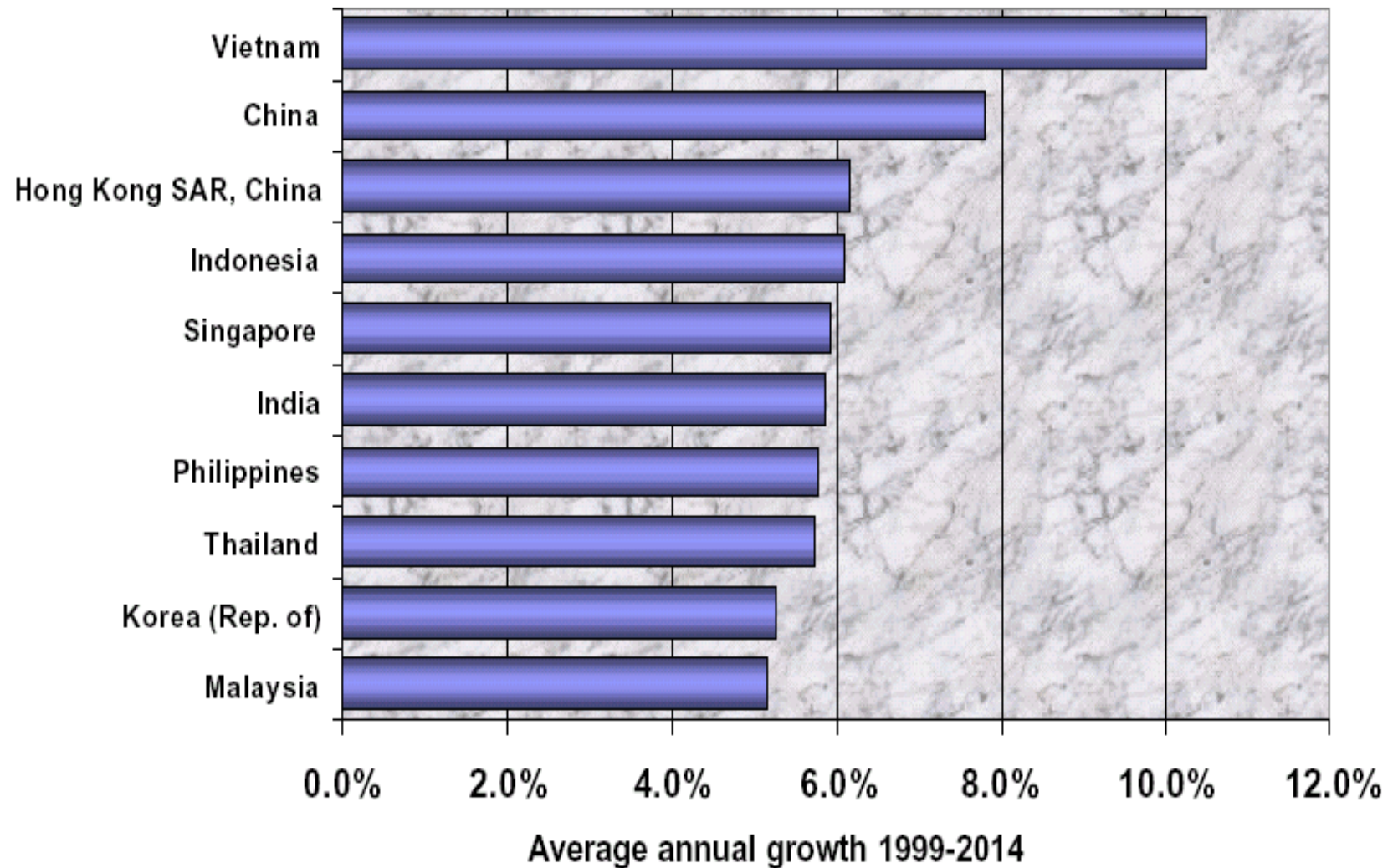


Source: Agricultural Trade in World, 1960-1985, Food and Agriculture Organization, Trade and Development, and Economic Research Service

Air Passenger traffic to/from and within Asia/Pacific region



*Top Asia/Pacific countries in terms of projected growth for
1999-2014 period*



Human Disease as Travelers on the Global Express



“Trade-Related Infection” an infectious disease whose:

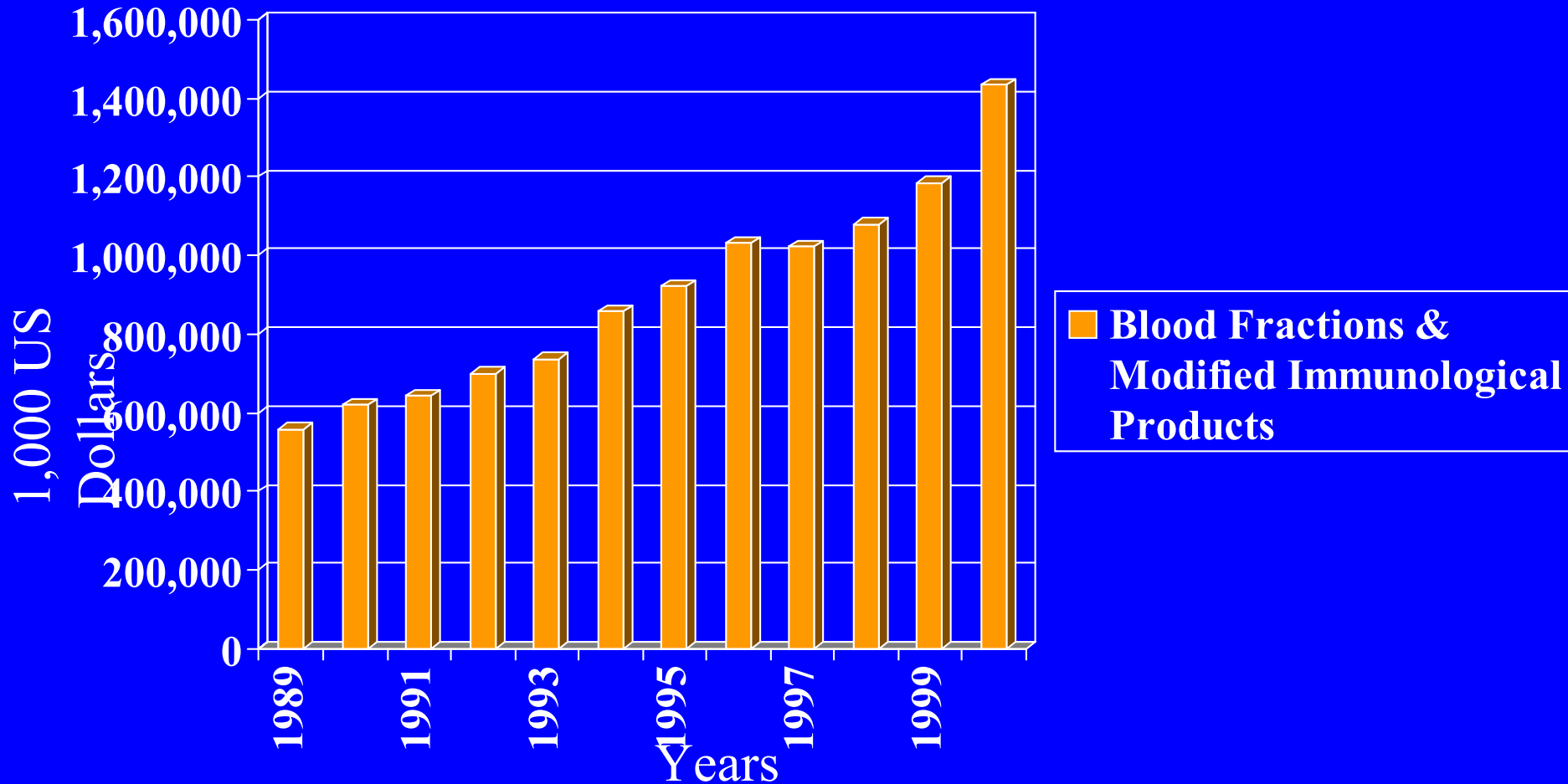
- Emergence is hastened by ecological pressure of “scaling up” production to meet international trade markets**
- Transmission is broadened through transportation or trade in goods**
- Economic impact is large in terms of trade disruption**

HIV/AIDS

- **Global travel facilitated introduction**
- **Increased population/urbanization facilitated transmission**
- **Technology of clotting factor production, shipping facilitated introduction, Technology of blood transfusion facilitated transmission**
- **Overlay of global epidemic on uneven resource base enhanced mortality in poor regions.**

US Export of Blood Fractions & Modified Immunological Products

1989 – 2000

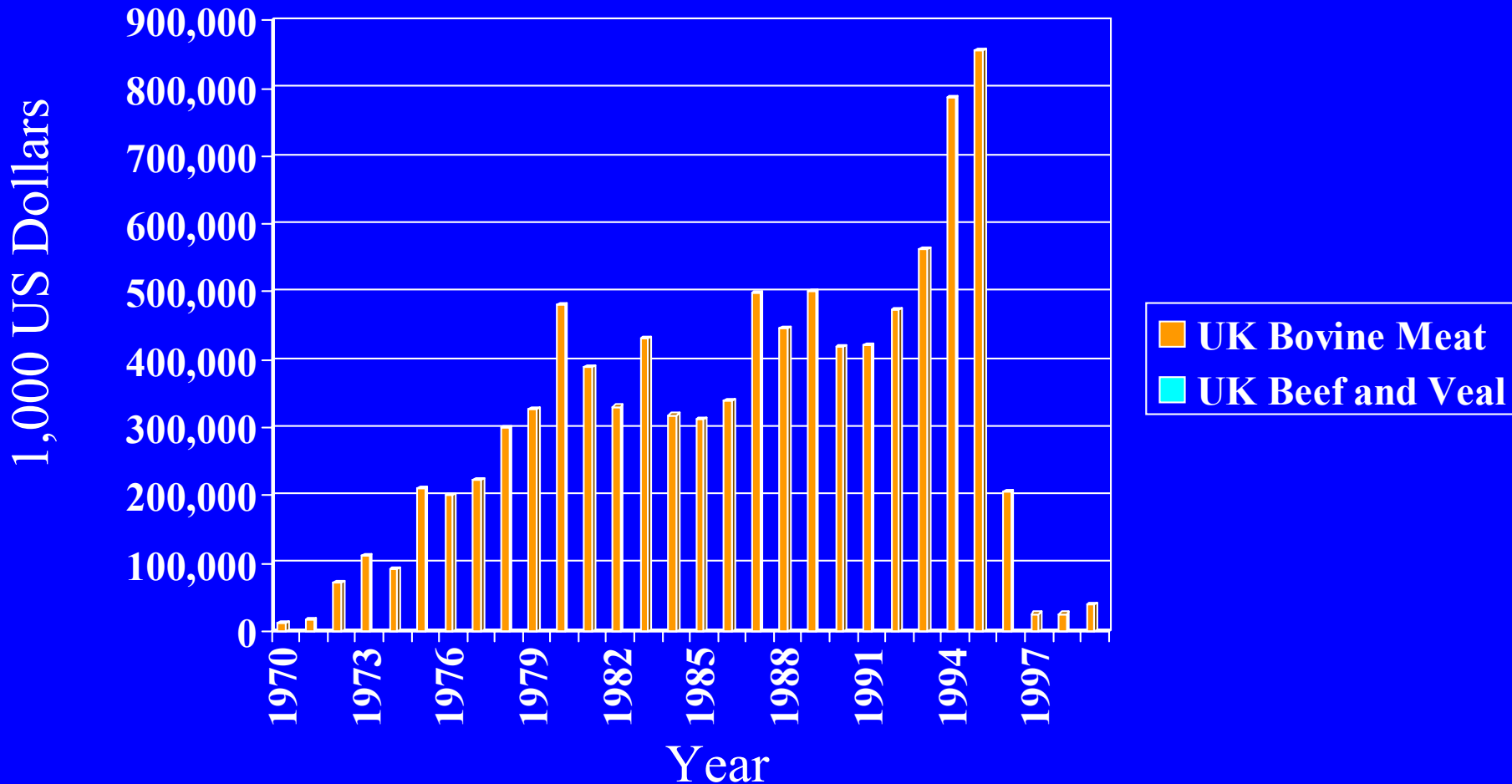


BSE/nCJD Disease



- Major contributor to disruption of beef trade
- Change in husbandry practice implicated
- Novel agent, long latency

UK Beef Exports 1970 - 1999



Food and Agriculture Organization of the United Nations, FAOSTAT

BSE/ New Variant Jacob Creutzfeldt

- **Region has had imported CJD (not new variant) human disease, clusters related to pooled source surgical grafts in 1997 seen in two economies.**
- **In 2001 first case of BSE in cattle reported from an APEC economy**

BSE/nvCJD How can networking help?

- **New agent, new biology, new pathophysiology**
- **New diagnostics under development**
- **Current clinical/laboratory recognition**
- **Epidemiologic investigation**
- **Information exchange, access to reference material, distance learning**
- **Insure earliest access**
- **Real-time lab/bedside consultation**
- **Localize clusters, prevent spread through trade**



**Washington
DC, 9/01**

**APEC:
A Network of Networks
To Combat
Emerging Infections**

**We Can Work
Together
To Make It Happen**