

**BILL L. CALLISON REPORT:
KAHULUI, MAUI, HAWAII AIRPORT IMPROVEMENT
ALIEN SPECIES PEST RISK ASSESSMENT ISSUES¹**

March 7, 2000

BACKGROUND

The Kahului Airport improvement proposal covers a number of significant modifications primarily within the existing airport property. These modifications include but are not limited to: existing runway lengthening to 9,600 feet, repaving and strengthening, addition of a new 8,500 foot runway (together with essential taxiways and navigational aids), improvement of bulk fuel storage tanks and pipelines, development of a lease lot for the flight kitchen, expansion of ground transportation facilities, construction of a new cargo facility, construction of a new perimeter roads and fencing, expansion of the terminal parking lot, and relocation of the airline ground support facility. Some minor land acquisition would be required. The effect would be to improve airport services and operational safety. Improved airport services would enable new international flights and the landing and takeoff of large fully loaded aircraft.

The Hawaii Department of Transportation commissioned and completed an extensive Environmental Impact Statement (EIS). Various stakeholder coalitions were formed to identify and evaluate the issues; and to recommend appropriate impact mitigation measures. The EIS included a biological assessment relative to the potential adverse impact of the introduction of alien species on Maui. Potential cumulative adverse impact was identified and pre-entry, port-of-entry, early detection/response, and other risk mitigation measures were identified.

Despite these adverse impact and mitigation measures, considerable disagreement and contention prevailed in connection primarily with alien pest risk and mitigation measures. Dr. Francis G. Howarth, an Entomologist with the Bishop Museum's Department of Natural Science and I were asked to participate in discussions with the stakeholder groups to identify the conflicting concerns. I traveled to Hawaii on Sunday, February 13, 2000 and returned to Sacramento on Sunday, February 20, 2000.

¹Bill L. Callison serves as the Assistant Director for Plant Health and Pest Prevention Services in the California Department of Food and Agriculture. He also serves as the Chief for the Plant Pest Diagnostics Branch and currently is the Vice President for the National Plant Board. Travel expenses, with the exception of round-trip airfare from Honolulu to Hilo and return, for the trip were paid by the Hawaii Department of Transportation, Airports Division. Airfare for the Hilo trip was paid by the Hawaii Department of Agriculture. Mr. Callison's salary was paid by the California Department of Food and Agriculture.

WORK SCHEDULE

On Monday, February 14, 2000, Dr. Wong and I first met with Mr. James Nakatani, Chairman of the Hawaii Department of Agriculture. Assisted and accompanied by Mr. Myron Isherwood of the Hawaii Department of Agriculture, Dr. Howarth and I later met with Mr. Ben Schlapak, the Head Planning Engineer and Mr. Stephen Takashima, the Senior Planner for the Airports Division of the Hawaii Department of Transportation at the Honolulu Airport.

Dr. Wong, Dr. Howarth and I met on Tuesday, February 15 with Mr. Don Reeser and Dr. Lloyd L. Loope, Director and Research Scientist, respectively, representing the U. S. Department of Interior and the Island of Maui's Haleakala National Park. Ms. Ellen VanGelder (Haleakala National Park) participated in the discussions and the subsequent tour of the Park. Among the alien plant pest species of particular concern is the red imported fire ant; but, many other invasive, harmful pests that now are not present in Hawaii threaten the native biota of the Park, Island of Maui and the State of Hawaii. On Wednesday morning, February 16, we met with Dr. Wong's staff at the Kahului Airport facilities. We returned to Honolulu in the afternoon.

Thursday, February 17, we joined a meeting of the "Alien Species Interdiction Team". This group formerly had been called the "Kahului Airport Alien Species Prevention". Mr. Callison discussed Dr. Conrad Brunk's North American Plant Protection Organization presentation on Principles & Practice of Risk Management.

On Friday, February 18, Dr. Wong and I flew to Hilo. On Saturday, we discussed grower concerns about the adverse impacts of existing pests on their ability to export Hawaiian cut flowers and foliage plants to markets in Japan, California and other mainland states. On Sunday morning, February 20, in order to make a comparison with the Haleakala National Park, we visited the Volcano National Park.

AGENCY CONCERNS AND BILL L. CALLISON COMMENTS

Concerns

- **Hawaii Department of Transportation, Airport Division**
 1. *Kahului Airport improvements are being held hostage to satisfy special interests.*
 2. *Proposed Kahului Airport improvements create very little additional alien species pest risks.*
- **U. S. Department of Interior/Haleakala National Park**
 1. *The hazards (harm to native biota) associated with the introduction of alien species are severe.*
 2. *Evaluation of the alien species pest risks relative to the Kahului Airport project does not adequately address risks to the Park, nor does it address risks to the State.*

3. *The Department of Interior was denied its request to be a party to the drafting of the Environmental Impact Statement.*

Airline Associations

1. *Airlines were not participants in the development of the pest risk mitigation measures that were developed for the Kahului Airport project.*
2. *The proposed pest risk mitigation measures will seriously and adversely affect travelers to Hawaii.*
3. *Costs for implementation of the proposed pest risk mitigation measures will be borne by the airlines despite the fact that they do not create the risk and are not the primary beneficiaries of the proposed Kahului Airport improvement.*

- **Hawaii Department of Agriculture**

1. *There is a need to improve Hawaii's current alien species pest prevention system.*
2. *Federal/state cooperation and collaboration needs to be improved.*
3. *International flights landing on Maui are expected to be from Japan and Canada. The destinations are low risk for passengers with agricultural contraband and hitch hiking pests.*
4. *Maui is not unique with respect to alien species risks; alien species landing on Oahu will in time move to Maui with passengers and cargo.*

Comments

The principles of pest risk analysis, risk management and risk communication are well established. However, it is the practice of those principles that becomes problematic.

Dr. Brunk's 1999 North American Plant Protection Organization Annual Meeting emphasized that the practice of risk management requires an integrated, iterative approach to risk analysis, risk management and risk communication. He began his presentation by pointing out that the process is an uneasy partnership of science and politics where the analysis component is science, the management component is social and the communications component is political.

Given the identified alien invasive species concerns, the fundamental issues are:

1. What are the hazards? How can the hazards be characterized? What is the probability that the identified hazards will be experienced?
2. What is an acceptable level of risk? All things being considered, what is the **appropriate** level of risk?
3. Who or what creates the risk? Who benefits? Who or what suffers the harm that may occur? Are the risks and benefits fairly distributed?

Presently, the Governor has declared that the new runway extension/new runway proposals are cancelled due to declining airport revenues (primarily Duty Free), the need to prioritize capital improvements, and the lesser need today for the longer runway with new aircraft that can land and take off from the existing runway fully loaded: The Hawaii Department of Transportation Airports Division plans to proceed with airport safety and operational improvements; representatives of the Haleakala National Park feel that many alien species issues have not been adequately addressed and until they are, oppose Kahului Airport improvements and the landing of new direct flights; and a lawsuit has been filed challenging the validity of the Environmental Impact Statement. Seemingly, resolution is impossible.

In fact, this impasse may present a significant opportunity--specifically, the review and analysis of alien species pest risk and subsequent development of a comprehensive alien species pest prevention system for the entire State of Hawaii. The stage is set: stakeholders have been identified; stakeholder representatives have been selected and brought together in work groups; the critical issues are on the table; and the Kahului Airport improvements, Environmental Impact Statement, Alien Species Action Plan, and other documents are available. How this alien species pest risk analysis and management system development process might be initiated is an issue. One approach would be an executive order by the Governor.

Dr. Conrad Brunk's outline of the Principles & Practice of Pest Risk Management could be followed to accomplish the review and analysis of alien species pest risk statewide. At critical points in the process, a facilitator familiar with the principles and practice of pest risk management and team building would be needed. Development of the management system would follow. An appropriate source of funding for this effort would have to be identified.

Another fundamental consideration is *trust building among the stakeholders*. Certain of the stakeholders have become adversarial—primarily because each sees the other as having engaged in untrustworthy conduct. Fundamental to the opposing positions and viewpoints may be 1) the idea that someone has to be a loser in the process and 2) a failure to see the interdependencies that exist among the stakeholders.

The first step would be to agree on the ultimate outcome that is to be achieved. I believe that this would not be difficult. During the visit and discussion at the meeting on Thursday, February 17, it was suggested that this outcome or mission is to protect the State of Hawaii from the harm that alien invasive species can cause to its agriculture, native biota, and economy.

Then, some time would need to be spent to identify and discuss the interdependencies that exist; and the roles, responsibilities and accountabilities of the stakeholders relative to this mission. As a result of this process, the kinds of untrustworthy conduct that have occurred are likely to emerge and be open for constructive discussion and resolution.

As in the case of the principles of pest risk analysis, management and communication, the various elements, components, functions, activities, and tasks of a comprehensive alien

species pest prevention system are well known. The application of the system to meet the State of Hawaii's needs in the most cost efficient and effective manner is the challenge.

The elements and respective outcomes of an alien species pest prevention system are as follows:

ALIEN SPECIES PEST PREVENTION

GENERAL STRATEGY

Maintain coherent organization closely allied (partnered) with federal and county agencies and other stakeholders to prevent the harm that alien species can cause to agriculture, native biota, and the economy.

STRATEGIC THRUSTS

OUTCOMES

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| <ul style="list-style-type: none"> • Maintain effective surveillance program | <p>-----Ability to assess newly identified risks and pest threats</p> |
| <ul style="list-style-type: none"> • Perform and keep current all essential pest risk analyses | <p>-----Ability to manage pest risk consistent with identified acceptable and appropriate levels</p> |
| <ul style="list-style-type: none"> • Develop laws and regulations necessary to maintain effective pest prevention program | <p>-----Adequate authority to effect management program</p> |
| <ul style="list-style-type: none"> • Effective enforcement of quarantine | <p>-----Prevention of colonization of alien species</p> |
| <ul style="list-style-type: none"> • Quick detect incipient infestations of quarantine pests | <p>-----Help to ensure feasibility of eradication of alien species infestations</p> |
| <ul style="list-style-type: none"> • Eradicate infestations of quarantine pests when feasible | <p>-----Prevent permanent establishment of alien species</p> |
| <ul style="list-style-type: none"> • Provide timely and accurate diagnostics and other professional scientific support | <p>-----Ensure science based decision-making</p> |
| <ul style="list-style-type: none"> • Maintain appropriate pesticide | <p>-----Ensure availability of adequate tools</p> |

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| Registrations, provisions for biological control agents, etc. | for eradication of incipient infestations of alien species |
| • Perform appropriate research | -----Development of new exclusion, detection, and eradication methods |
| • Complete environmental impact statements as required by federal and state laws | -----Ensure that environmental impacts are identified and addressed |
| • Stakeholder outreach and education | -----Ensure stakeholder input; and that program are supported by affected industry and public |

STATE OF HAWAII
DRAFT PEST RISK ASSESSMENT OUTLINE

May 4, 2000

PATHWAYS FOR ARTIFICIAL SPREAD OF PLANT PESTS

- **AIR**

<u>Modes</u>	<u>Pests</u>	<u>Relative Introduction Risk</u>
Airplane (passenger compartment/wheel wells)	Mosquitoes, midges/other hitchhiking pests	Low-Moderate
Stowed baggage	Spiders/other	Low-Moderate
Carried baggage	Stored product pests/other	Low-Moderate
Cargo/cargo containers	Ant, snakes/many others	Moderate-High
Parcel containers (Foreign mail, US mail, FedEx, UPS, etc.)	Various	Low-High
Smuggling	“Pet” snakes, weeds/other	Moderate-High

Comments: A pest risk assessment for Maui’s Kahului Airport could serve as a model for other airports located throughout the State. Variables relevant to other airports would be taken into consideration.

SEA

<u>Modes</u>	<u>Pests</u>	<u>Relative Introduction Risk</u>
<i>Cargo ship</i>	<i>Asian gypsy moth/other</i>	<i>Low-High</i>
--Cargo	Various	Low-High
--Cargo containers	Hitchhiking pests	Low-Moderate
--Cargo packing mtls	Asian longhorned beetle and other forest and wood product pests	Low-High
--Ballast water	Exotic crustaceans/other	Low-High
--Smuggling	Citrus canker/other	Low-High

<i>Cruise ship</i>	Flying pests	Low-Moderate
--Stowed baggage	Various	Low
--Carried baggage	Various	Low
--Ballast water	Exotic crustaceans/other	Low-High
--Smuggling	Various	Low-High
<i>Private yacht*</i>	Various	Low-High

* The vessel itself likely would present little or no risk. Foodstuffs and smuggled items would be the major concerns.

Comments relevant to both air and sea:

1. Separate analyses would be need for foreign and domestic (mainland USA and inter-island) arrivals. Interception data from AQUIS, California, MAF New Zealand, USDA, etc. could be collected and analyzed for applicability to Hawaii and identification of data gaps. Special "blitz" inspections could be performed to gather data relevant to identified data gaps.
2. Probability of harm in the event of the permanent establishment of a pest is the key concern. This requires that federal and state regulatory officials know with some considerable degree of certainty:
 - A. What pests of current concern are not present in the State and the distribution of pests that already are present in the State.
 - B. The nature and the degree of the harm that specific pests not present in the State could harm to agriculture, the environment, and the economy. Without this data, it is difficult to justify specific levels of pest prevention activities.
3. The probability of introduction and colonization is the key factor in determining the state's need for legal authority; and the resources needed to perform the pest prevention functions of pest surveillance, quarantine and quarantine enforcement, pest detection, pest eradication, scientific support, research, and public outreach.
4. A review and evaluation of the existing capacity of the existing State of Hawaii plant pest program relative to current authority, capacity to fulfill current expectations, etc. would serve as a baseline upon which to build additional capacity to address needs identified in the pest risk analysis.