ORDINANCE NO. 722-A

Introduced by Commissioner Dennis DUNN

AN ORDINANCE AMENDING THE COMPREHENSIVE PLAN TO DELETE THE CURRENT AIRPORT EXCEPTION STATEMENT ON PAGES A-12 through A-16 AND INCLUDING THE AMENDED VERSION OF THE AIRPORT EXCEPTION STATEMENT.

The City of Warrenton ordains as follows:

Section 1. The Warrenton City Commission finds that appropriate hearings have been held and notices given and, having considered the testimony of interested parties, adopts the findings of fact attached hereto as Exhibit "A", and by this reference incorporates herein said findings as the new Airport Exception statement.

Passed by the City Commission of the City of Warrenton this 18th day of November 1981.

Approved by the Mayor of the City of Warrenton this 18th day of November 1981.

Leslie W Newton
Mayor

ATTEST:

Gilbert Swanson
Auditor and Police Judge

85.00 Goal Exception to Allow Clatsop County Airport Dike Realignment (cf 42.07, 42.08)

85.10 Description of proposed exception;

The Clatsop County Airport is located in the City of Warrenton and owned and operated by the Port of Astoria. Three acres of forrested and scrub/shrub estuarine wetland lying northeast of Runway 25-7 of the Clatsop County Airport are designated Development Aquatic. This designation is necessary to allow for the removal of 800 feet of existing flood control dike and construction of 750 feet of new dike waterward of the present flood control structure such that precision runway instrumentation may be installed on Runway 25-7. The dike relocation will remove no more than three acres of estuarine wetland fringing Youngs Bay, northeast of Runway 25-7. The wetland site receives irregular tidal exposure. An exception to two requirements of Statewide Planning Goal 16, Estuarine Resources, is proposed to allow for this development use. First, the dike relocation will require filling of estuarine wetlands in order to accommodate a non-water dependent use. Secondly, the Development Aquatic designation and associated dike construction and fill activities are contrary to the natural management unit guidelines contained in the Management Units Section of Goal 16. (Reference: City of Warrenton Comprehensive Plan, page A-12 through A-14, and Subarea Summary page A-48 through A-53; Columbia River Estuary Regional Management Plan, Youngs Bay Subarea 42.07, Airport and Vicinity Subarea 42.08, and Goal 16 Exception to Allow Dike Realignment Airport - Appendix Section 85.00)

85.20 Need--Why the planning designation should be provided for;

85.21 Analysis of present and potential use of the Clatsop County Airport is contained in the "Clatsop County Airport Master Plan, 1979-2000 -- Technical Report," and the supplementary "Master Plan Environmental Impact Assessment Report," prepared by Parametrix, Inc. in 1979 for the Port of Astoria. These documents establish the specific airport improvements necessary to improve and increase the intensity of use of the Clatsop County Airport.

85.22 Movement of the existing flood control dike is essential to more intensive utilization of the airport. The dike relocation is necessary for installation and safe optimal use of an instrument landing system (ILS), a central element of the airport use and improvement strategy set forth in the Clatsop County Airport Master Plan.

85.23 Installation of an ILS electronic guidance apparatus will establish a precision instrument runway at the Clatsop County Airport. The ILS is a sophisticated electronic guidance system consisting of a localizer antenna (located beyond the far end of the runway, providing vertical guidance) and a glide slope antenna (positioned alongside the runway and establishing vertical guidance). These antennae operate synchronously with marker beacons and approach lights. Approach lights necessary to complement the ILS include runway alignment indicator lights (RAIL) and a medium intensity approach light system (MALSR). This system will provide aviation users of the Clatsop County Airport with sufficient instrumentation to make precision approaches to Runway 25 during extreme weather conditions.

The present dike must be moved waterward because the profile of the dike top penetrates the prescribed safety dimensions of the approach surface, glide slope critical area and primary surface area of Runway 25-7, as established by Federal Aviation Regulations (FAR), Part 77, pertaining to precision instrument runways. The constructed elevation of Runway 25-7 is 9.0 feet NGVD (National Geodetic Vertical Datum). The airport is built on diked estuarine sandy soils with natural site elevations ranging from 1.0 to 9.0 feet NGVD. The flood control dike surrounding the area is generally 10 to 13 feet in elevation (NGVD). Analysis of ILS siting alternatives and minimization of wetland impacts due to dike relocation is presented in section 85.30, Alternatives.

85.24 Expansion of the usefulness of the Clatsop County Airport, providing all-weather operations and optimal safety areas, will result from ILS installation. Minimum conditions for aircraft approaches and landings will be enhanced to one-half mile horizontal visibility with a 200 foot cloud base. Present navigational aids at the airport limit instrument assisted aircraft operations to minimum weather conditions of one mile horizontal visibility with a 500 foot cloud base. An ILS installation would increase the utilization of Runway 25-7 by approximately 45-50 percent (Parametrix 1979). One of the immediate users of the improved instrumentation will be the U.S. Coast Guard. The Coast Guard intends to exploit the site location advantages of the airport, using the facility as the Northwest base for HU-25 jet patrol aircraft. These patrol planes will be used to fulfill the Coast Guard's mandate to monitor fishing vessel activities in the 200 mile fisheries conservation zone and to enforce federal marine pollution standards. The Coast Guard and the Federal Aviation Administration require precision runway instrumentation for safe all-weather operation of the jet patrol planes. Additionally, an ILS would allow optimal and intensive use of the planes by the Coast Guard in its enforcement activities. The HU-25 patrol planes, equipped for Coast Guard operational needs, would require between 5000 and 6000 feet of runway for fully laden, all-weather takeoff. The minimum length for safe, all-weather landing is 5000 feet. Discussion of the selection of Astoria as the base of Coast Guard patrol responsibilities in the Northwest is included in section 85.30, Alternatives. ILS improvements would also lead to other airport improvements outlined in the airport master plan and generally enhance future general and commercial aviation use of the airport (see Socio-Economic Consequences, 85.50).

85.30 Alternative precision runway instrumentation options

The airport master plan and environmental assessment studies cited above provide detailed analysis of alternative runway development and placement of the ILS. The following discussion draws from these materials as well as information provided by the Federal Aviation Administration and state and federal resource agencies. Analysis of runway development alternatives is based on the orientation of the runways to seasonal weather conditions, the ability of the landing instrumentation to function correctly and the amount of construction and wetland impacts resulting from runway development.

85.31 Construction of ILS on Runway 21-3

Runway 21-3, 3984 feet in length and 200 feet wide, is used by general aviation interests. This runway is the shortest of three runways at the Clatsop County Airport and is equipped as a visual-approach-only surface. Modifications of Runway 21-3 for use by larger planes, including at least 2000 feet of additional

surface, provision of an ILS and a full complement of approach lights, would require a significant and prohibitive investment (Parametrix 1979, FAA 1981 - D. Taylor, personal communication). Moreover, the orientation of Runway 21-3 in relation to seasonally strong wind conditions and the airport flood control dike would prevent safe, intensive all-weather use of the runway for general, commercial and Coast Guard aviation (Parametrix 1979, FAA 1981 - D. Taylor, personal communication).

85.32 Construction of ILS on Runway 13-31

Runway 13-31, 5059 feet in length and 200 feet wide, is the second longest existing runway at Clatsop County Airport. In order to meet the landing and takeoff runway length requirements of HU-25 patrol planes an additional 500 to 1000 feet of runway would be needed. In addition to an ILS, Runway 13-31 requires redesign for a complete approach light system, leveling, and new pavement. The directional orientation of Runway 13-31 is considered poor for a precision instrument runway for two reasons. First, winter wind conditions would prevent thorough all-weather use of the runway. Secondly, installation of an ILS and the necessary approach lights, allowing for instrument assisted landings from the northwest, would be obstructed by the Burlington Northern Railroad tracks which pass the northern tip of the existing runway (Parametrix 1979). The track embankment and rail traffic preclude these installations. Further, industrial development of the east bank of the Skipanon peninsula would present a potential obstacle to the approach surface and glide slope critical area of a precision instrument runway.

Installation of a displaced instrument landing threshold, moving the touch-down location or focus of the ILS and approach light system, southwest along Runway 13-31 would eliminate obstructions posed by the railroad and potential development at the Skipanon peninsula. However, such a displacement would position the instrument landing threshold of Runway 13-31 within the runway intersection of the airport, effectively closing Runways 21-3 and 25-7.

Alternatively, an instrument landing system could be installed on Runway 13-31 providing for all-weather landing of aircraft from the southeast. This option would require clearing of approximately 60 to 70 acres of woodland for placement of the necessary RAIL and MALSR approach lights. Additionally, 500 to 1000 feet of new runway necessary for safe all-weather take off capability would be constructed. This alternative is considered infeasible due to the inability to locate a localizer antenna at the north end of Runway 13-31 and since the topography south of the runway would prevent the establishment of safe approach surface, glide slope and primary surface area dimensions (Parametrix 1979, FAA 1981 - D. Taylor, personal communication). Further, seasonal wind conditions would prevent optimal use of the precision instrument installation.

85.33 Construction of ILS on Runway 25-7

Runway 25-7 is the primary runway at the Clatsop County Airport. The surface of the runway is the most uniform, having been repaved and leveled in 1978, and the runway is most suitable for operating aircraft with respect to seasonally prevailing winds.

In order to upgrade the entire length of Runway 25-7, providing for the proper functioning of ILS antennae and meeting FAA approach, glide slope critical area, and primary surface area requirements, approximately 1800 feet of dike would require relocation. This would remove 28 acres of wetlands from tidal influence. Further, four piling structures supporting runway approach lights would be located outside the dike east of the runway, extending into tidal marsh and the Lewis and Clark

River. This option would make the entire length of Runway 25-7 5800 feet, available for instrument landing and takeoff.

In order to meet ILS operating specifications and FAA area and slope requirements without relocation of surrounding flood control dikes, a displaced landing threshold of 1300 feet would be necessary. Such a displacement would reduce the instrument assisted landing length of Runway 25-7 to 4500 feet. Extension of the runway to the west would be necessary to provide safe all-weather landing criteria. However, 500 to 600 additional feet of runway at the western extremity of Runway 25-7 would require filling and re-routing of Vera Creek. This option would require two pile supported approach lights located in the tidal marsh east of the foot of Runway 25-7.

While retaining the full length of Runway 25-7 for takeoff purposes, it is possible to reduce the amount of dike relocation by providing a displaced ILS assisted landing threshold. The airport master plan indicates a 714 foot displacement of the landing threshold would allow for safe all-weather instrument landings, maintaining 5000 feet of runway for emergency landing of fully laden aircraft. This alternative would require relocation of 800 feet of flood control dike and subsequent loss of 3 acres of tidally influenced wetland. Three pile mounted approach lights would be required in the wetland area east of the dike beyond Runway 25-7.

The latter alternative was identified in the Clatsop County Airport Master Plan and by the Port of Astoria and the Federal Aviation Administration as the most suitable instrument runway development option. A minimum of dike relocation would be needed, and construction and installation costs would be minimized. Moreover, this runway development option would maximize the all-weather use of a precision runway installation at the Clatsop County Airport. Aircraft operations would be least affected by adverse weather conditions and the proper functioning of the ILS equipment would be assured.

85.34 The alternative of no action, foregoing the installation of a precision instrument landing facility at Clatsop County Airport, would preclude expansion of Coast Guard operations. The Coast Guard would not be allowed to pursue its plans to locate the HU-25 jet aircraft at the Astoria airbase, and the permanence of the present airbase operation might be reconsidered. Without additional runway development the Clatsop County Airport would continue to be restricted in use, and future general and commercial aviation activities would be limited (see Socio-Economic Consequenses, Section 85-50).

85.35 Clatsop County Airport as a base for Coast Guard Patrol Planes

The U.S. Coast Guard intends to station two HU-25 jet patrol planes at the Clatsop County Airport. These planes would supplement the three H3F Sikorsky helicopters in service in Astoria at present, and provide expanded patrol coverage of the 200 mile fisheries conservation zone and surveillance of marine pollution occurrences. The Coast Guard selected Clatsop County Airport as the site for the jet patrol planes for three reasons. First, Astoria is centrally located, providing timely and fuel-efficient patrol coverage of the Washington and Oregon conservation zone. The Clatsop County Airport alone has sufficient existing runway length and runway development potential to accommodate the patrol aircraft. Port Angeles, Washington, and North Bend, Oregon airport facilities are inadequate and cannot feasibly be expanded. Second, installation of an ILS at Astoria would provide the most optimal all-weather capability of the alternative airport sites. Third, the present Coast Guard air station at Clatsop County Airport has adequate existing hangar space and back-up facilities to support the new patrol aircraft.

85.40 Environmental Consequences

85.41 The Development Aquatic designation is intended to accommodate the relocation of 800 feet of flood control diking and the associated filling of three acres of forested tidal swamp.

85.42 The forested tidal swamp area loss will reduce the total estuarine area which contributes detrital export to the estuary. The detrital material is part of the food supply for the lower organisms of the food web (CREST Inventory 1978, Columbia River Estuary Regional Management Plan 1979). A minor decrease of food particulate available to benthic invertebrates could result, which may affect the resident and transitory fish by altering the abundance of invertebrate food species. Such an effect is, however, not expected to be significant.

85.43 The forested tidal swamp also provides food and shelter for many aquatic and terrestrial species of wildlife (CREST Inventory 1978, Columbia River Estuary Regional Management Plan 1979). Species affected by the area loss could include aquatic furbearers, waterfowl and numerous other species of birds. Loss of this habitat is not expected to be significant.

85.44 Alteration of three acres of forested and scrub/shrub estuarine wetland, as noted in Alternatives, Section 85.33, will require mitigation. This goal 16 exception narrative does not propose specific mitigation options for the potential alteration of intertidal and tidal estuarine wetlands. Mitigation provisions will be made when dredge and fill activities are presented for permit review pursuant to the development designation posed by this exception statement. The object of the comparative alternatives discussion (Section 85.30) is to demonstrate that the Development Aquatic designation of three acres of forested tidal swamp is necessary in light of available, feasible alternative runway development options. The Development Aquatic designation is the minimum necessary in order to accommodate more intensive all-weather use of the Clatsop County Airport. The steps necessary to mitigate the impacts expected from activities made possible by the development designation will be specified by federal and state resource agencies responsible for permitting alteration of intertidal and tidal estuarine wetlands.

85.45 The ILS improvements, of which the dike modification is an element, would lead to increased air traffic activity at the airport which, in turn, will create noise impacts in the Jeffers Gardens area and in the City of Warrenton. The area most impacted by increased activity at the Clatsop County Airport will be residential zones east of Runway 25-7. The slow gradual approach of instrument assisted landing aircraft will create a day-night average sound level or LDN value (a weighted average of equivalent sound levels) of approximately 60 over Jeffers Gardens and the area surrounding Alternate Highway 101 and Daggett Point. The LDN 60 value represents noise impacts expected through the year 2000. Noise Impacts resulting from planes taking off to the west on Runway 25-7, specifically the LDN 60 noise level contour, will extend across the City of Warrenton. The LDN 70 contour, generally associated with heavy aircraft use, will be completely contained within the primary airport boundary through the year 2000. Noise impact data and LDN contours developed by technical consultants and the FAA indicate that the expected 3000 Coast Guard jet oprations per year at the Clatsop County Airport will have no discernable effect distinct from existing and expected commercial and general aviation airport activities (FAA letter to the Port of Astoria 1981). The noise level contours will expand in subsequent years due to an expected increase in air traffic irrespective of the ILS installation and Coast Guard jet patrol plane use of the airport. The present City of Warrenton comprehensive plan zone, Airport Development (I-4), pertaining to lands surrounding the airport, is sufficient to protect future development in adjacent areas from noise impacts (see attached Figure 8).

It is also expected that the LDN noise [illegible] oted [illegible] ve wi[illegible] have some undetermined adverse impact on wild life use o[illegible] ne airport vicinity. This impact is expected to be minor.

85.46 The dike relocation activity would most likely involve a single-action environmental alteration. Once this relocation is completed, only normal maintenance activities are anticipated.

85.47 The chosen scheme for the installation of the ILS improvements will have lesser environmental impact than other alternatives.

85.50 Socio-Economic Consequences

85.51 Without acceptance of the 3 acre Development Aquatic designation the Port of Astoria will be unable to instigate the ILS improvements proposed in the Clatsop County Airport Master Plan, and the airport would be unable to handle the Coast Guard HU-25 jets. The local economy would not realize the potential positive employment and economic benefits that would result from the increased activity at the Coast Guard air base. Future prospects for the continued use of the air base as a helicopter base could be endangered if the airport were unable to accommodate the HU-25 jets. The existing helicopter air station operates with a crew of 21 officers and 95 enlisted personnel.

85.52 The proposed ILS improvements would provide for a more intensive utilization of an existing transportation facility. The existing airport facilities are a public asset with the potential for expansion in areas such as commercial and passenger service. Minor improvements, such as the installation of an ILS, could allow for greater use of the airport. Airport improvements could also lead to increased development of airport-related industries at the Port of Astoria's airport industrial park. An income multiplier of 2.5 is estimated for aviation activity at the Clatsop County Airport (see attached Table 24).

85.53 The potential socio-economic benefits which could result from improvements at the Clatsop County airport would affect the City of Warrenton, the City of Astoria, Clatsop County and the entire North Oregon coastal region. The airport is the only facility of its size and potential on the north coast. Its location, in close proximity to the population centers of the area, would allow for maximum private and public use. A national interest is also involved, since the proposed improvement work would be directly associated with federal enforcement of the 200 mile fisheries conservation zone and pollution control requirements.

85.60 Energy Consequences

85.61 One of the factors which was considered by the Coast Guard in its selection of Clatsop County Airport as a potential HU-25 jet base was its central location along the Pacific Ocean coastline. The location provides for timely dispatching of aircraft and also results in substantial fuel savings as compared to inland airports or airports located on the extreme north or south coast.

85.62 The chosen ILS improvement option is the most adaptable alternative to the existing airport facilities. It will not require energy consumptive improvements such as runway extension paving.

85.70 Compatibility

85.71 There are no other intensive uses in the immediate vicinity of the proposed dike relocation. The area adjoins Youngs Bay to the north and the Lewis and Clark River to the east. Land areas to the south and west are devoted to airport open space (I-4, Airport Development Designation; and Airport Hazard Zone Overlay).

85.72 There are indirect use impacts which can be tied to increased air traffic use of the airport. Increased air traffic will result in proportional increases in noise levels, airway congestion and accident potential.

85.73 Controls on dike relocation and filling methods could be utilized to reduce environmental impacts. Techniques such as vegetative replanting or buffering could be used to minimize impacts upon adjoining wildlife habitat areas.

85.74 It is expected that the public good will benefit positively from the Development Aquatic designation, and that the public's need and gain will offset any negative impacts resulting from development subsequent to the designation.

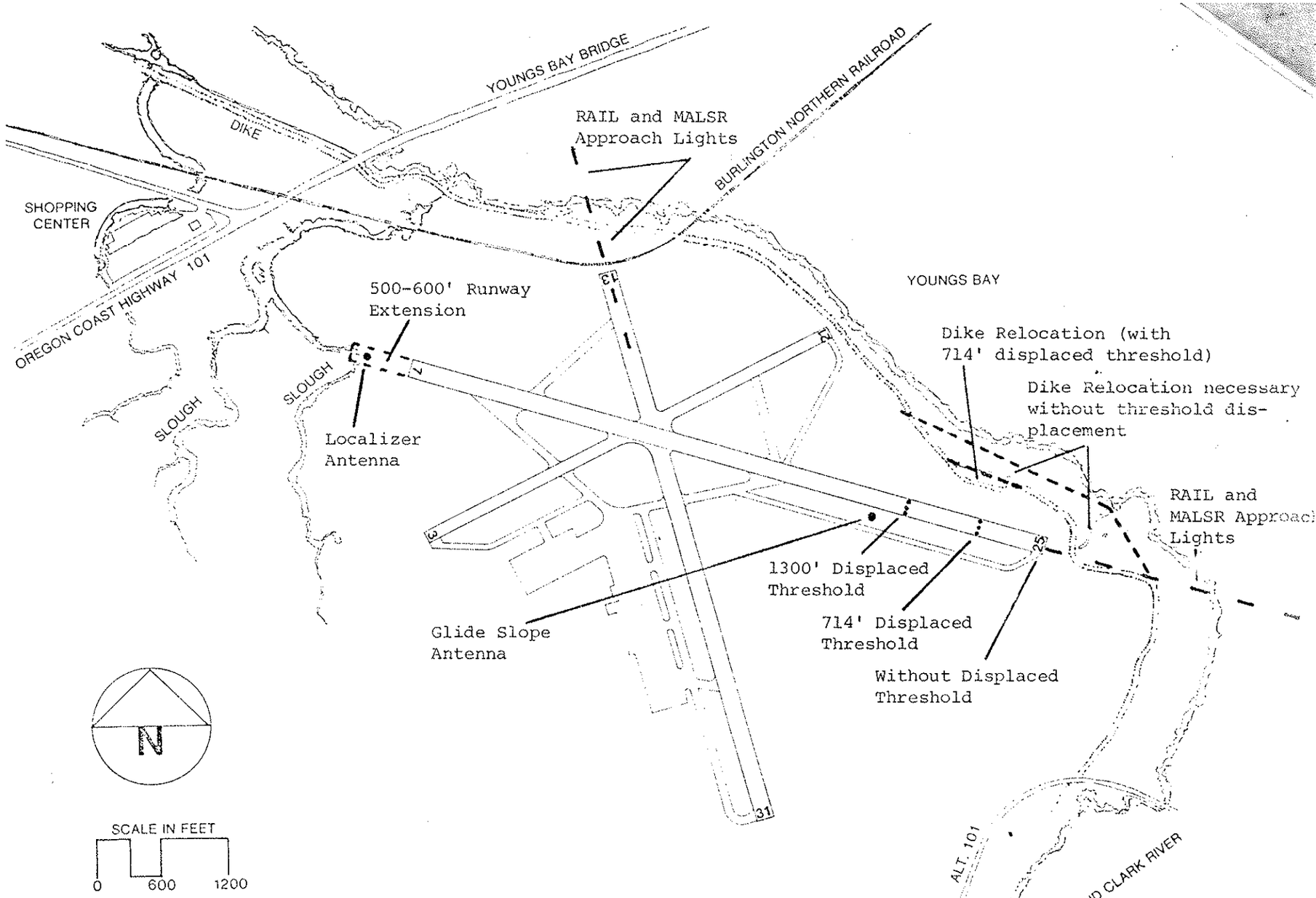
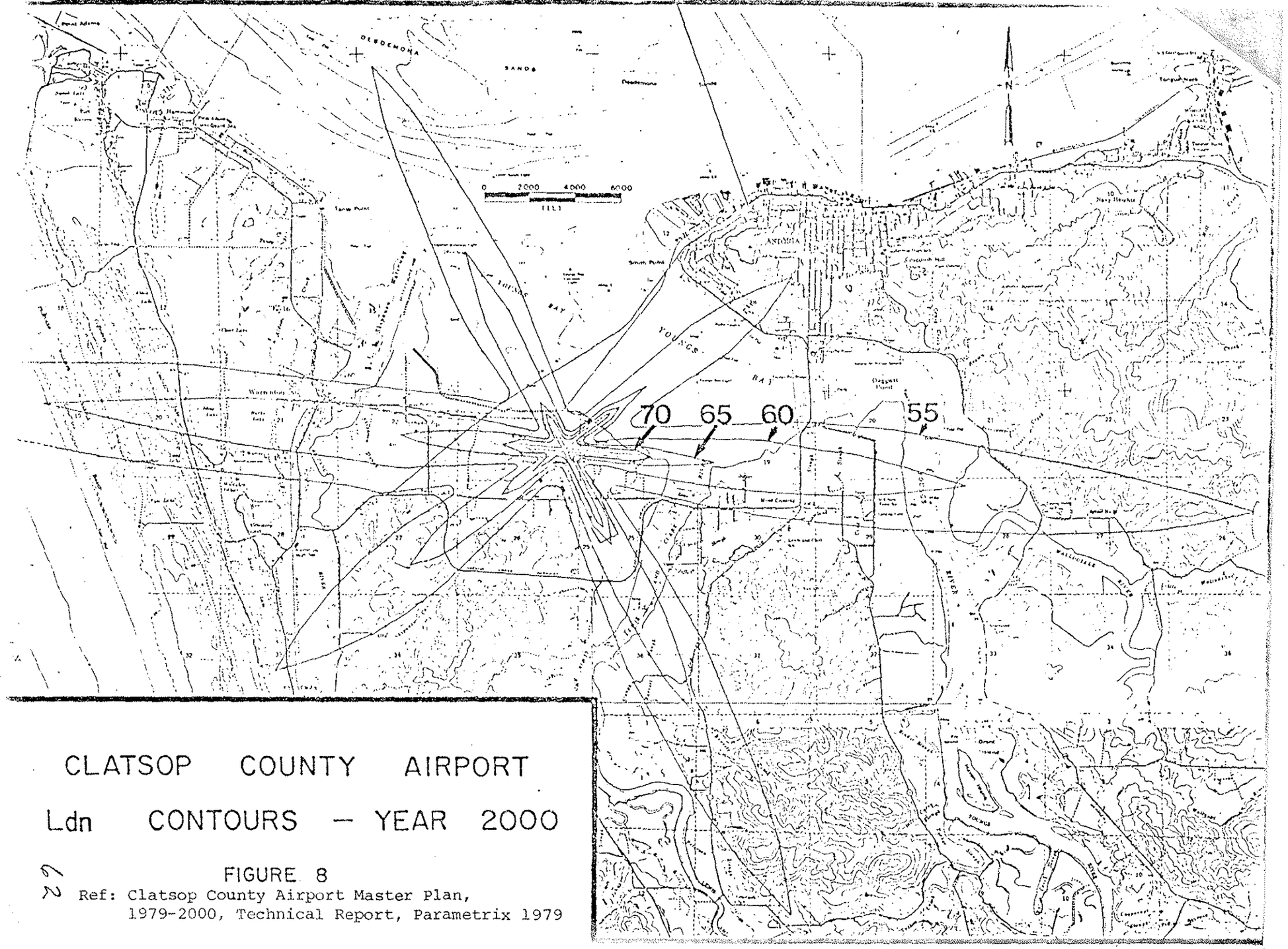


Figure 2. Airport Layout.

Ref: Clatsop County Airport Master Plan, 1979-2000, Environmental Impact Assessment Report, Parametrix 1979



CLATSOP COUNTY AIRPORT

Ldn CONTOURS — YEAR 2000

FIGURE 8

Ref: Clatsop County Airport Master Plan, 1979-2000, Technical Report, Parametrix 1979

TABLE 24

CLATSOP COUNTY INCOME MULTIPLIERS BY SECTOR

Sector	Multiplier
Other Fishermen	3.2
Financial	3.1
Education	3.0
County Government	2.9
Federal & State Agencies	2.9
Professional	2.8
Retail Services	2.8
Salmon Processing	2.7
Households	2.7
Restaurants	2.6
Agriculture	2.6
Troll Fishermen	2.6
Construction	2.6
Gillnet Fishermen	2.4
Lodging	2.4
Logging	2.4
City Governments	2.3
Transportation	2.3
Other Fish Processing	2.1
Combination Fishermen	2.0
Manufacturing	1.9
Automotive	1.6
Service Stations	1.6
Wood Processing	1.5
Retail & Wholesale Products	1.5

TABLE 25

AVERAGE EXPENDITURES PER AIRCRAFT

Aircraft Type	Cost/ Hour	Avg. Hours Flown	$/Based Aircraft
Single	$ 14	190	2,660
Multi-Piston	$ 60	260	15,600
Rotary	$ 70	346	24,220
Turbine	$ 290	414	120,060

Ref: Clatsop County Airport Master Plan, 1970-2000, Technical Report, Parametrix 1979