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DOT News



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USCG Academy Set to Greet Women Cadets

The first women admitted to the U.S. Coast Guard Academy will report for duty June 28, a week ahead of women cadets at West Point and Annapolis.

RAADM William A. Jenkins, superintendent of the 100-year-old academy in New London, Conn., expects 30 women in the incoming class of 325. He's ready for them.

The *Eagle*, the three-masted barque that has been training future Coast Guard officers for nearly three decades, has been modified to provide 18 "berthing spaces" for the women. The cadet complement of the vessel is 150.

Chase Hall, the 1,200-"man" barracks, now has men and women restrooms, but otherwise the building is unchanged. Like the men, the women will live two to a room but not in a special "women's area."

The academy barber shop will continue to serve that purpose—but with a difference. The barbers have been sent to school to learn the intricacies of doing women's hair.

The academy's programs—academic, military, and summer (See WOMEN, p. 2)

Flying Without A Plane Made Easy by FAA/NASA

To practice landings a pilot needs an airplane and an airport, right? Not necessarily.

The FAA and the National Aeronautics and Space Administration have worked out an ingenious hookup that allows fliers to practice landings at a variety of airports without leaving the ground. Or using a real airplane.

It is done via a simulator at the NASA-Ames facility at Moffet Field, Calif., tied by telephone lines to the Dynamic Simulation Laboratory at FAA's National Aviation Facilities Experimental Center at Atlantic City.

The pilot "takes off" in the simulator and his "flight" route is flashed to the lab's computer and shown on a radar scope. A different telephone line carries voice communication between the pilot and controller.

The NASA simulator can be configured in a variety of airplane types, and the NAFEC control lab can simulate the environs of a variety of real airports.



The U.S. Coast Guard training barque *Eagle*, resplendent in her newly acquired distinctive Coast Guard "slash" and new gold-leafed eagle figurehead, will be tied up at the Reserve Training Center at Franklin and Union Streets, Alexandria, May 28 to May 31. Visitors are welcome aboard the 295-foot ship May 29-30, from 9 a.m. to 11 a.m. and from 1 p.m. to 4 p.m.

Subject to Search

FAA Extends Baggage Checking Regulations

Checked airline baggage, long exempt from screening, is now subject to search under a new Federal Aviation Administration security program.

FAA Administrator John L. McLucas said airlines have been provided with guidelines to identify passengers whose luggage could contain explosives. The baggage of anyone failing to meet the criteria would be subject to search.

In some cases, passengers also may be asked to provide positive personal identification.

Dr. McLucas said the FAA will continue research and development of electronic and

other devices that would automatically inspect checked baggage.

The FAA is in the process of awarding contracts to the Westinghouse Electric Corp. for two test models of an x-ray system to provide fast and effective automatic baggage screening.

An earlier model made by Westinghouse has been in use for screening carry-on bags.

The new system works on the principle that explosives will absorb more x-ray energy than surrounding material. This increased absorption rate would be sensed by the device which would then sound an alarm.

Its major advantage over conventional x-ray systems would be that it does not have to be monitored by security personnel and is less subject to human error.

McLucas' action places into effect one more security improvement growing out of the Industry/Government Task Force on airport security that he chairs. The group was established by Secretary of Transportation William T. Coleman, Jr., at the direction of the President following the bomb explosion at LaGuardia Airport last December which killed 11 persons.

Veteran Pilot

Roscoe Appointed Aviation Safety Chief

Marion F. Roscoe has been named chief of the newly created FAA post of assistant administrator for aviation safety.

A veteran of 34 years in the Federal service, Mr. Roscoe has been director of the National Transportation Safety Board's Bureau of Aviation Safety since January 1975.

He previously served with the FAA from 1960 to 1963 and from 1947 to 1957.

In announcing the appointment FAA Administrator John F. McLucas said Mr. Roscoe would function as "inspector general" for aviation safety, with broad authority to investi-

gate safety-related issues and recommend corrective actions.

Mr. Roscoe began his Federal career in June 1947 with



Marion F. Roscoe

FAA's predecessor, the Civil Aeronautics Administration, as an aeronautical inspector in Alaska. Over the next 10 years he served in a number of operational positions leading to the post of chief of the air carrier safety branch in the Alaskan Region.

He learned to fly under the 1938 Civil Pilot Training Program and became a military pilot in the Army Air Force in 1941. He holds certificates for airline transport pilot, flight instructor, and aircraft dispatcher.

Mr. Roscoe resides in Fairfax, Va. with his wife, Irene, and their two children, Paul and Cathy.

Coleman Asks For Changes in Air Regulations

In a recent appearance on Capitol Hill Secretary of Transportation William T. Coleman, Jr., told a Senate subcommittee that Federal economic regulation benefited neither the airlines or their customers.

"A naturally competitive, dynamic, individualistic industry has been placed into a straightjacket of a highly inflexible regulatory system which has impeded price competition, denied qualified entrants access to the industry or to new markets and permitted many anti-competitive agreements," Secretary Coleman said.

He said the result has been misallocated resources, numerous inefficiencies and inequities, and most important, higher fares than would otherwise exist. All of this is paid for by travelers and shippers.

Secretary Coleman testified April 7 before the Aviation Subcommittee of the Senate Committee on Commerce during hearings on the Administration's proposed Aviation Act of 1975.

The Aviation Act, which was sent to Congress by President Ford on Oct. 8, 1975, would (See AVIATION, p.2)

NHTSA Searches For Ways to Foil Auto Thieves

If you have a better idea on how to foil car thieves, the National Highway Traffic Safety Administration wants to hear from you.

NHTSA is looking for ways to make its motor vehicle standard dealing with theft protection more effective. The standard would require stronger door and ignition locks.

The agency is also looking for an improved hood and trunk locking mechanism that could be operated only from the inside of the vehicle. Other proposals call for different keys for the steering lock and door and trunk locks, as well as a system which makes it impossible to leave the key in the car ignition.

Your better idea should be addressed to: Docket Section, National Highway Traffic Safety Administration, 400 Seventh St., SW, Washington, D.C. 20590.

The Road Ahead

Tiemann Looks to A.D. 2001

America's magic carpet, the automobile, is here to stay—but it will evolve into a much more practical and economical vehicle.

This is one of the predictions of what the transportation picture will look like 25 years from now made by Federal Highway Administrator Norbert T. Tiemann.

Speaking before a group at Syracuse University, Mr. Tiemann said that in the next 25 years:

- Automobiles will continue to be America's predominant form of transportation but they will be more efficient and come in greater variety. Passenger vehicles will range from very high-mileage mopeds (motorized bicycles) to multi-passenger van-buses and recreational vehicles with a high proportion of diesel and some Sterling cycle engines.

- Low-powered electric and other two- or three-seat vehicles with a maximum speed of 30 m.p.h. will be used in neighborhood and urban areas.

- Motor fuels will include gasoline blended with 20 to 30 per cent methanol, diesel fuel, nonpetroleum fuels from coal, gasahol (made from corn), cellulose products and wastes and electricity.

- In terms of 1976 dollars, fuel will cost about \$2 a gallon, but expenditures per passenger-mile will have increased less than 100 per cent, perhaps only 25 per cent.

- Trucks will be operating in designated lanes on selected intercity routes as trains of three to 12 semitrailer units behind a single tractor truck, with tandem axle loads of 40,000 pounds.

- Carpooling will be the way to go. During rush hours in urban areas, more than 75 per cent of the automobiles used for commuting will carry more than one person.

- Control technology will have to be developed and in use which will permit vehicles

to travel at much closer intervals more safely.

- Exclusive bus lanes will be in use in all large urban areas.

- All major cities will have several ARZ's—automobile restricted zones.

- Buses will continue to play a major role in the urban mass transit picture.

- Unless there are major technical breakthroughs which greatly reduce the capital investment, few new subway systems will be in use.

- There will be increased use of "light" fixed rail facilities (updated version of the old trolley cars), and monorail may play a very limited role in certain areas.

- Some new interstate system-type, freeways will have been constructed, but the focal point of the Federal-State highway program will be on expanding the capacity of existing primary and secondary roads (by then known by other names).

- Federal highway funds will be available for use by the states for rehabilitation of existing roads.

- There will be widespread use of various wastes as materials for highways.

- The Federal interest in all forms of surface transportation will be expressed through a Surface Transportation Administration, which will include rails, mass transit, and the waterways.

- Highway travel will be much safer; vehicles will have many more safety features and our engineering technology will have advanced to the point that the roads constructed in 2001 will make those we know today look out-of-date.

Mr. Tiemann concluded his remarks by saying "I am sure everyone here can make predictions of his own concerning our transportation system 25 years down the road. But let's all remember—at this point we're only guessing."



Lloyd D. Schwalb

Schwalb Named UMTA Director Of Public Affairs

Lloyd D. Schwalb has been named public affairs director of the Urban Mass Transportation Administration, following 18 years with the Port Authority of New York and New Jersey.

Schwalb has been supervisor of passenger and community services with the Port Authority Trans-Hudson Corporation (PATH), the Authority's rail transit operating subsidiary.

Goldman, Tigner are Promoted to Key Executive Positions in FAA

Federal Aviation Administrator John L. McLucas has appointed Brooks C. Goldman director of the Office of Management Systems in FAA's Washington headquarters, and Glen D. Tigner deputy director of FAA's Air Traffic Service.

Goldman served previously as technical advisor to the Office of Systems Engineering Management.

In his new post he will be responsible for operation of the agency's data processing systems and management statistical systems, development of administrative service standards, and management analysis and technical support services.

Goldman began his FAA career in 1958 as an electrical engineer. From 1963 to 1972 he held a series of supervisory positions, the last of which was chief of the Configuration Management Staff of the National Airspace Systems Program Office.

Tigner was formerly chief of the Air Traffic Control Operations and Procedures Division.

In his new job he will be responsible for policy direction of the nation's air traffic control system, allocation and use of the national airspace, and development and implementation of air traffic rules.

Tigner joined FAA in 1952 as an air traffic controller in the agency's Eastern Region, working in a number of facilities before transferring to a staff position in Washington.

In announcing the appointment, Urban Mass Transportation Administrator Robert E. Patricelli said that Mr. Schwalb's extensive rail operating experience and direct dealing with the transit riding public will be an invaluable asset to the news media and the transit industry.

Prior to his assignment with PATH, Schwalb was executive staff editor and assistant to the Port Authority's executive director.

Before joining the Port Authority, Schwalb was employed for two years as assistant to New York's Mayor Robert F. Wagner as public services officer in New York City's Department of Commerce and Public Events.

A native of New York City, Schwalb received a Bachelor of Arts degree from New York University in 1949.

He subsequently did graduate study at the New York University Graduate Institute of Public Affairs and Regional Studies, where he held an Alfred T. Sloan Foundation graduate fellowship, and at the New School for Social Research.

Car Belts Could Save 89,000 Lives

As many as 89,000 lives that otherwise might be lost in traffic accidents can be saved over a 10-year period if everyone used a safety belt while traveling in a car.

In the same time span, strong and uniform enforcement of the 55-m.p.h. speed limit would save 31,900 lives.

These two highway safety countermeasures stand out above all others analyzed in *The National Highway Safety Needs Report* sent to Congress recently by Secretary of Transportation William T. Coleman.

Among those analyzed were combined alcohol safety action countermeasures; emergency assistance to crash victims; schools for problem drivers; installation of various highway safety features including mandatory warning signs, guard-rails, breakaway signs and lighting supports; motorcycle rider safety helmets; vehicle inspection programs; and bridge widening.

Other programs covering motor carrier and vehicular safety, including occupant protection systems such as air bags, or improved vehicle crashworthiness, are not dealt with in the report.

The study is based on interviews with more than 1,000 officials, experts and other professionals in the highway safety field. The study also incorporates a comprehensive literature search to identify significant traffic accident problem areas and locate data regarding the effectiveness of potential solutions.

The problems are attributable to the regulatory system itself, and not to the past or present members or the Civil Aeronautics Board (CAB), Secretary Coleman said. The CAB is responsible for regulating airline fares and routes under the terms of the 1938 act which established the regulatory system.

"The question before us is not whether to reform but how," Mr. Coleman said. "The problems are too grave to allow us to choose the status quo, the benefits of change are too clear."

Aviation—*from page one*

relax economic regulation of the airlines, encourage greater price competition and allow airline managements to respond more easily to consumer demand.

Secretary Coleman said the proposed legislation would "reduce the wasteful inefficiencies associated with today's airline system" and permit well-managed firms to earn reasonable profits and attract new investors—something they have been unable to do consistently under existing regulations.

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Women—*from page one*

cruises—will be the same for men and women. The physical education program includes women in all activities except wrestling and handball.

The first three prospective cadets accepted for the historic Class of 1980 are: Cathryn Lis, Bristol, Conn., Susan Kollmeyer, Groton, Conn., and Cynthia Snead, Melbourne, Fla.

According to academy officials, a record 10,000 applications were received this year—an increase of 3,000 over 1975. Of these, 700 were from women.

Coast Guard Academy appointments are tendered solely on the basis of an annual nationwide competition. Congressional appointments and geographical quotas like those for the Army, Navy, and Air Force academies are not part of the Coast Guard Academy cadet selection process.

Complete details on application procedure and academic programs can be obtained by writing: Director of Admissions, U.S. Coast Guard Academy, New London, Conn. 06320.



DOT's Transportation Systems Center is located at Cambridge, Mass., a five-minute rapid transit ride from historic Boston Common. Acquired from the National Aeronautics and Space Administration in 1970, the \$40 million, six-building complex is completely equipped to perform multi-modal research and development.

Think Tank

DOT's Research Center Uses Brainpower For Solving Transportation Problems

There is more to transportation than wheels and wings and waterways. Getting something to roll, fly, or float is no small thing—but that alone is not good enough.

What is needed to make a good thing even better is a steady stream of knowledge on how to do these things more efficiently, safer, and with due regard to the environment and the quality of life.

This knowledge is being generated at the Department of Transportation's Transportation Systems Center (TSC) at Cambridge, Mass., a 5-minute ride on the Red Line rapid transit from historic Boston Common. Two stops up the line lies Harvard University, and a short walk to the west toward the Charles River brings you to the campus of the Massachusetts Institute of Technology.

Thus, TSC is ideally located at the center of academic and technical excellence in the northeastern corner of the United States.

The Transportation Systems Center staff of 660 is under the direction of Dr. James Costantino who was sworn in Feb. 5, 1976, after serving in Washington for two years as the executive assistant to the Deputy Secretary of Transportation.

Costantino has a B.S. in mechanical engineering from the University of Massachusetts, a

master's in engineering administration from George Washington University, and a Ph.D in transportation policy and economics from American University.

Dr. Costantino's staff is strongly multi-disciplinary, applying their talents to about 130 projects sponsored by the Office of the Secretary and the operating administrations.

Of the 478 professionals working at TSC, more than half have degrees beyond the bachelor's degree, and 93 of those have doctorates.

This is the brainpower behind the horsepower. The term "horsepower" in this case includes research on transportation systems, analyses of the social and economic effects of those systems, program management, technological assistance, and systems analyses among multiple modes of transportation.

A case in point is the Department's recommendations for improving rail service in the Northeast Corridor, the Washington-New York-Boston passenger route. TSC specialists took a critical look at projected ridership, return on investment, cash flow and other financial variables. With this information in hand, DOT planners were able to develop sound recommendations for revitalization of this major passenger and freight rail artery.

"Contracts" with the Federal Aviation Administration put TSC researchers to exploring the safest and most effective spacing of jet liners and small general aviation aircraft in airport traffic patterns, improving antenna patterns for the air traffic control radar beacon system, and conducting air traffic communications experiments with National Aeronautics and Space Administration satellites.

For the Urban Mass Transportation Administration, TSC scientists and statisticians tested the state-of-the-art rapid transit cars, conducted surveys to determine the transit needs of the elderly and the handicapped, and experimented with bus scheduling and routing systems.

Transportation Systems Center clients can be found in all the operating administrations. The St. Lawrence Seaway Development Corp. enlisted their aid in collecting data on adapting FAA air traffic control equipment for use in directing ship traffic in the Seaway.

Aircraft noises, wake turbulence from large aircraft, effectiveness of highway signs,

portable blood/alcohol test equipment, nondestructive testing of automobile tires, statistical studies of all modes of transportation, the effects of transportation-related construction on the environment and people—this is only a small sample of the broad range of activities undertaken by TSC scientists and specialists.

The six-building TSC complex came under the control of DOT almost accidentally. Built originally for NASA as an electronics research center, a shortage of funds obliged the space agency to close it soon after it opened in December 1969.

Coincidentally, DOT, which was then two years old, was looking for just such an installation and staff. In March 1970, the \$40 million complex was transferred to DOT. With it came some 400 of NASA's approximately 860 employees.

The proprietorship has changed but the underlying function remains the same: research and development, with the results contributing to a better life for all Americans.

The Transportation Systems Center is attached to the office of Hamilton Herman, assistant secretary for systems development and technology. TSC is unusual among government agencies in that it does not have a budget of its own, *per se*. In government jargon, it is not a "line item" in any department's or administration's budget.

Instead, it gets its operating funds from PPAs—project planning agreement—to perform research and development for the office of the secretary and for the operating administrations. PPAs can be compared to contracts in the academic, industrial, or commercial sectors.

The current "budget" is more than \$50 million.



Rudolph Nags tests a portable alcohol screening device used in drunken driver prevention work. The unit was designed by personnel in the Transportation Systems Center.



Granville Paules (then assigned to TSC's office of systems research and analysis, and now with Urban Mass Transportation Administration's office of transit planning) discusses a dual-mode transit network with Donald Ward and John Barber. Right: Henry H. Bessler of TSC's electromechanical branch checks the reading on a rotating tire under test. The device was developed at TSC for tire retreaders to assure accurate selection of tires suitable for recapping.



The St. Lawrence Seaway

Opening America's Heartland to the Sea

David W. Oberlin began his second term as Administrator of the St. Lawrence Seaway Development Corporation on Mar. 4, 1976, after holding the post since August 1969. Before joining the Seaway Corporation, Oberlin from 1967 to 1969 was director of the Seaway Port Authority of Duluth, Minn. Oberlin, 56, is a native of Kansas and a graduate of the University of Michigan. In World War II he served in the Navy's submarine service and returned for two years of active duty during the Korean conflict. He is a recipient of the Silver Star.

Mr. Oberlin, the "Corporation" part of the St. Lawrence Seaway Development Corporation title is confusing. Would you clarify this?

The St. Lawrence Seaway Development Corporation is one of seven operating administrations within the Department of Transportation. Unlike the others, however, we have a corporate structure. That is, we function as a business enterprise, own all of our property, and operate on revenues—not appropriated funds.

Our organization is totally self-sustaining. We charge tolls to those vessels which use the waterway and for the cargo they carry.

These tolls pay all our operating and maintenance costs, including wages and salaries, and capital improvements. Surpluses go to the U.S. Treasury to reduce the original construction debt.

What are the corporation's chief responsibilities?

We are responsible for the development, operation and maintenance of the Seaway between Montreal and Lake Erie, within the territorial limits of the U.S.

We also are responsible for encouraging development of traffic through the entire system so as to stimulate the economic and environmental development of the region. It also is our duty to provide a safe, efficient and effective artery for maritime commerce, both in peacetime and in time of national emergency.

Before the corporation was made part of the newly-formed DOT in 1966 how did the Seaway fit into the U.S. departmental structure?

When the corporation was formed in 1954, it was an independent agency reporting directly to the President, with supervision by the Secretary of the Army. In 1958 it was transferred to the Secretary of Commerce.

When DOT was formed directly and supervision of the



Administrator was shifted to the Secretary of Transportation. The Administrator is appointed by the President and the term is for seven years.

Where are your offices?

Like the heads of all DOT operating administrations, the Administrator's office is in Washington. Our operational offices are in Massena, close to our lock facilities on the St. Lawrence River in upstate New York.

Could you describe the facilities your corporation operates and maintains?

We are responsible, with Canada, for vessels transiting the Seaway from Montreal to Lake Erie. Our vessel traffic control activities include managing ship movements, responsibility for navigational aids and maritime radio facilities along the river, as well as for channels throughout this span.

Of the seven locks between Montreal and Lake Ontario, the corporation operates the Dwight D. Eisenhower lock and the Bertrand H. Snell lock, which are connected by the 10-mile-long Wiley-Dondero ship channel.

These locks can accommodate ships up to 730 feet long, 76 feet wide, 117 feet above water level, and with a draft of up to 26½ feet. Between Montreal and Lake Ontario, a vessel is lifted a total of 234 feet. The average lockage time is about 30 minutes per lock.

The corporation owns and operates its own floating equipment—including a 300-ton crane, a tug and other workboats. We do most of our own maintenance, and have well-equipped maintenance shops to help keep our facilities in first-class condition.

What are your toll charges?

For transit of the international section of the Seaway between Montreal and Lake

free through the remaining locks in the system, the St. Mary's River Sault Ste. Marie (SOO) facilities. These are operated by the U.S. Army Corps of Engineers and the Canadians.

What would a typical voyage be like for a ship sailing from the Atlantic Ocean entrance to Duluth, Minn.?

Such a ship would transit 2,342 miles. Traveling at an average speed of 10 knots, the trip would last about seven days. The ship would pass through 16 locks and be raised 602 feet. Major U.S. deep draft ports of call could include Ogdensburg, Buffalo, Erie, Ashtabula, Cleveland, Toledo, Detroit, Bay City-Saginaw, Muskegon, Burns Harbor (Ind.), Chicago, Milwaukee, Green Bay, Superior and Duluth.

One thing often overlooked is that some distances to Europe are shorter via the Seaway than from the East Coast. For example, from Cleveland to Rotterdam via the Seaway is only 3,674 miles, versus 3,684 miles from Baltimore to Rotterdam.

What are the primary types of cargo shipped via the Seaway?

Iron ore, grain, oil and processed agricultural products. Major general cargo commodities are manufactured goods and steel and iron products. During 1975, 48 million tons of cargo passed through the corporation's locks. Of that total, 44.4 million tons was bulk and 3.6 million tons was general cargo. Commercial vessel transits during the year totaled 4,336.

How long is the Seaway shipping season?

Generally, from early April through mid-December. Ice, fog and other severe winter con-

ditions have been the main obstacles to remaining open 12 months. Due to corporation season extension efforts, however, we have added a total of 48 more shipping days since the 1959 opening. Our longest season was the last one. We were able to open our locks to shipping March 25, 1975, and keep them open through December 19.

What are you doing to assure maximum utilization of the Seaway system?

We have an active development program in effect and many successes already have been recorded. For example, since joining DOT in 1966, we have had several record tonnage years. By working closely with Congressional and Seaway maritime interests, we were able to encourage American flag ship carriers to return to the Great Lakes during 1975.

We have also been an active participant in the Congressionally-funded, multi-agency Winter Navigation Board which has been engaged in a five-year program to demonstrate that year-round navigation on the Seaway is possible.

Our organization produces a number of informational reports and brochures for shippers, agents, vessel operators, port authorities, terminal operators, and the general public, as well as several publications jointly published with Canada.

How does the Seaway compare with other transportation systems and is it energy efficient?

The Seaway system is the world's fastest growing trade route. It is a major connecting link between our nation's industrial heartland and overseas ports. No other transportation system is as economical, energy efficient and environmentally safe as the Seaway.



All seven of DOT's operating administrations will have exhibits at the Bicentennial Exposition on Science and Technology, which opens May 30 and continues daily through Labor Day at the Kennedy Space Center, Fla. Fifteen geodesic domes, plus the world's third largest building, the National Aeronautics and Space Administration's vehicle assembly building (background), will house exhibits from 16 government agencies and a dozen industries.