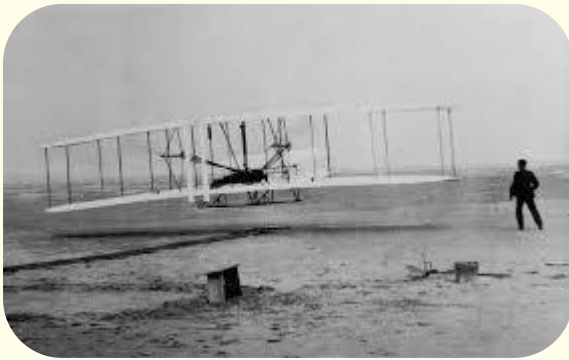

When Nature meets Tarmac: The History of Aviation in Tompkins County



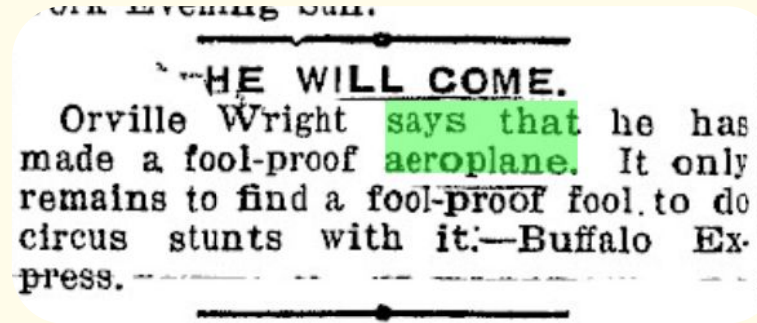
Alex, Maria, Simone, Belle, Grace

Spring 2025

Wright Brothers Make History



The 1903 "Wright Flyer" the first plane by The Wright Brothers



Although aviation was a groundbreaking achievement to humanity, it was also a very dangerous feat!



Tom Tate with Drum fish standing in front of a 1900 glider.
Library of Congress

Background

Turn of the 20th century- Planes were making headlines!

Your boy is interested in aviation. Of course he is, every boy is interested in the conquest of the air and you yourself would like to be able to "make talk" about the birdmen without getting tangled. The Journal is prepared to make matters easy for you in conversing about the new world of conquest. as

Ithaca Daily Journal, 6 January 1912 – Page 9

- The new mode of travel brought about large shifts in society.

- Soon the reliance on air travel had impacts beyond people.
- The quest for the shiniest, newest, airports did immense damage on the surrounding environment that are still seen today.



1953 Tompkins County History Center

Ithaca Airports

Looking for a field to fit a runway is no easy task.

Ithaca was up for the challenge.

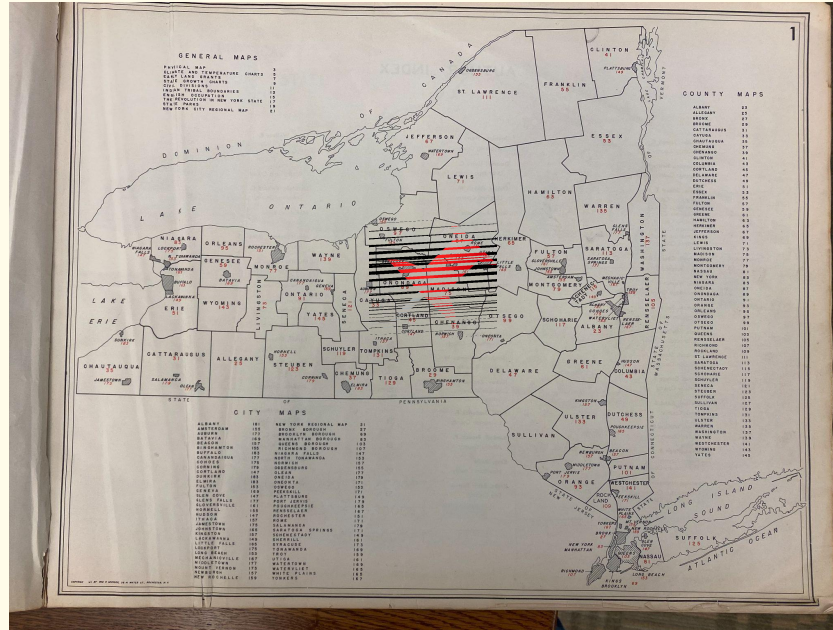
U. S. Aeroplane Station in Ithaca

In Case of War Probable if Government's Plan to Establish Air Line New York to Chicago is Perfected.

The federal government is planning the establishment of an aeroplane line between New York City and Chicago to carry fast mail and to transmit important messages in case of war. It would be desirable, and greatly to the advantage of Ithaca, if a regular landing station were to be established here.

On account of the university, with its military department, and on account of the location here of the Thomas-Morse Aircraft Corporation, it is believed by those most interested in the project that Ithaca will secure the station rather than Binghamton or Hammondsport. Both these places are under consideration.

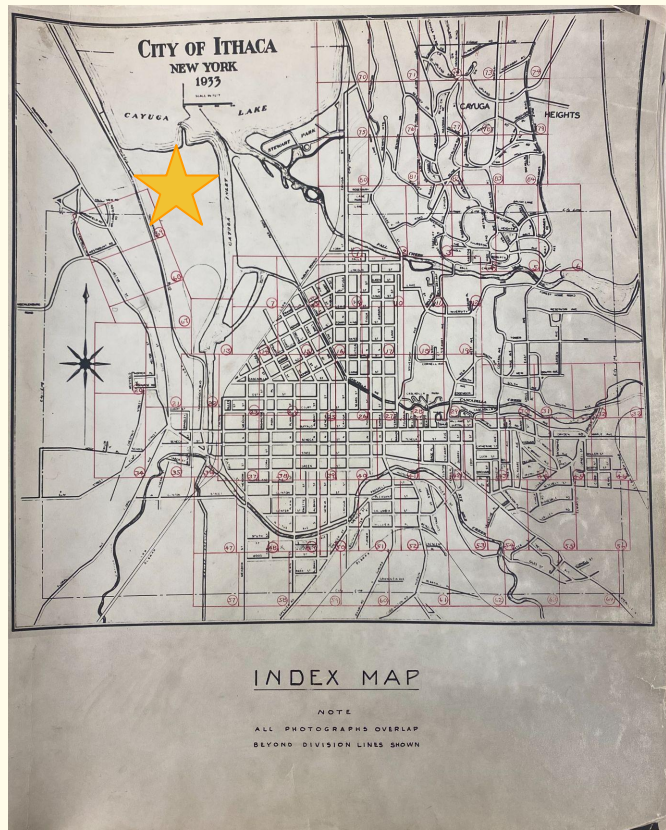
The government desires a level site three-quarters of a mile long and 300 yards wide for the station. Just such a site as may be afforded by the Thomas-Morse aviation field on the west side of the inlet, at the head of the lake.



Map of New York State, location of Tompkins County



Present day
Ithaca Tompkins International Airport



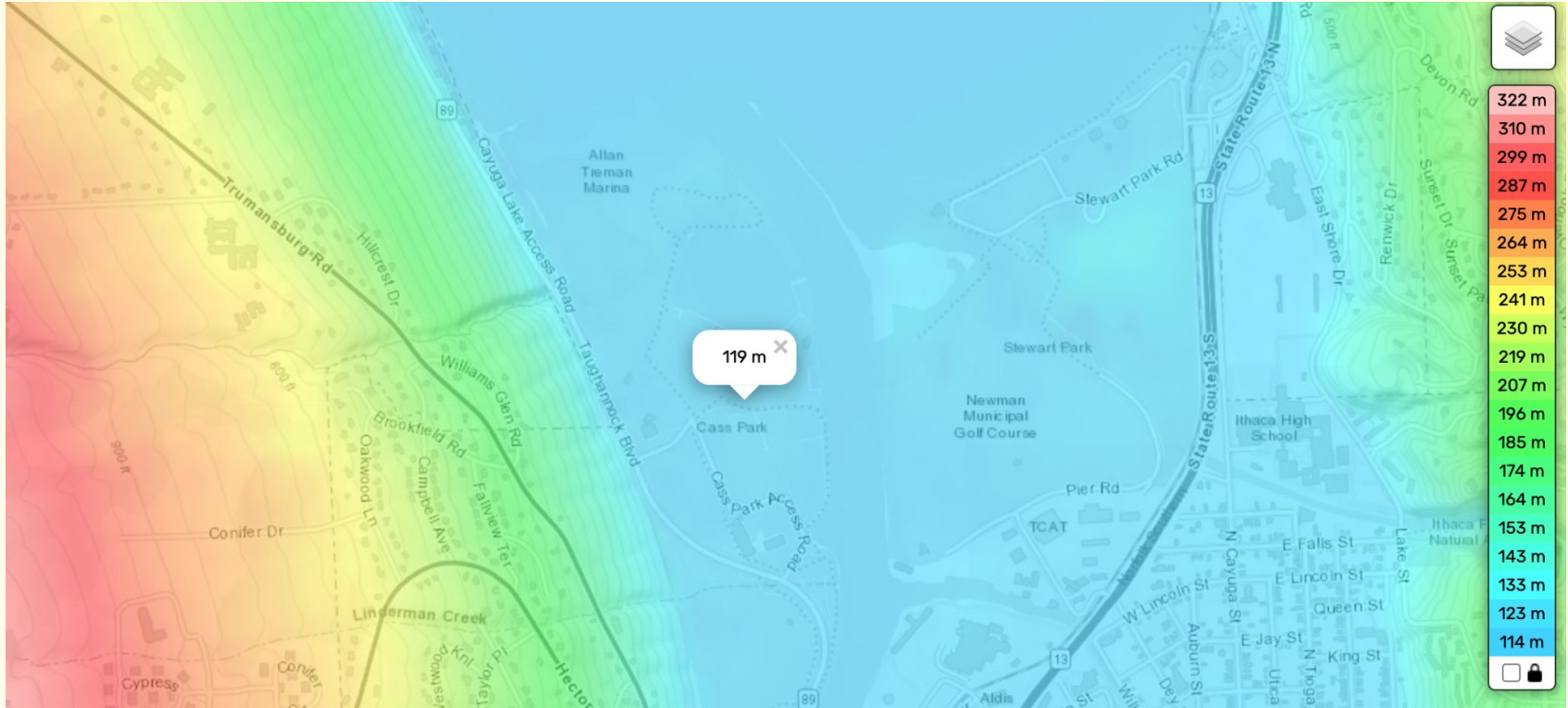
Ithaca Municipal Airport

1914-1948

- Located west of downtown Ithaca
 - Near the inlet of Cayuga Lake
- Thomas Brothers Aeroplane co. established flying school in 1915
- Former airport site is present day Cass Park
 - Original airplane hangar renovated in 1975

Swamp Made Into Runway

Topographic look at Municipal airport site



Map via <https://en-gb.topographic-map.com/>

Making way for a runway

Just Peachy



ONE OF THE OLDEST municipal airports in the country, Thomas Field, near Cayuga Lake consisted of one hangar and a runway in a peach orchard.

Syracuse Post-Standard Pictorial, August 7, 1955

While it may seem obvious, airports take up space and it was not just empty space, the plants and animals that inhabited the landscape were removed in the name of aviation.

deal of work in this area, the city cut down the trees east of the runway and built a new hangar. It was opened at a gala ceremony attended by some 10,000 Ithacans in September, 1954.

JUN 30 1956

6/30/1956 courtesy of Tompkins County History Center

Park at Municipal Airport Site
Will Fulfill 50-Year-Old Dream

ITHACA--The Municipal Airport's come a long way since the 1920s when it was full of trees, snapping turtles and squatters who bought food from a grocery boat that came up the inlet.

11/3/1957 courtesy of Tompkins
County History Center

Nature has other plans...

Swamp Drained
They drained the swamp, dredged, and piled up silt to make the ground several feet higher. A hangar designed by the late Johnny Larkin was one of the first cinder-block structures



- First cinder block structure in Ithaca.

Update: Consistent flooding may push the Hangar Theatre Company out of the Hangar Theatre

by Jimmy Jordan November 11, 2021



The Hangar Theatre, which is located on a flood plain, saw safeguards designed to handle the effects of a 100 year flood tested on Oct. 26. (Photos by Jimmy Jordan) Credit: Provided / The Hangar Theatre

11/11/2021 Article via <https://ithacavoice.org>

Improvements In Lansing



Beverly Baker, owner of Baker Travel, said a longer runway - planned for an as yet unscheduled second phase of improvements - would enable larger aircraft to use the local airport. That may lure some people who regularly drive to Syracuse to catch flights to leave from Ithaca.

Reps. will try to head off potential trouble at new airport terminal site

Planning Lansing



- Original site proposed: Dryden Road (competing with a new landfill site)
 - Delays over this fight are predicted to “cost taxpayers millions”
 - Delays allowed garbage to pile up before needing to be moved elsewhere for disposal for airport construction
- Architect Egnar claimed the goal in his design was to make an airport that would last for many years whilst respecting the past.

Mason said worrying about the Army Corps in advance will be standard procedure for all future construction efforts.

“You’ll see this happening throughout the state.” he said. “We’re just the first county to deal with it, but the rest are lining up behind,” Mason said.

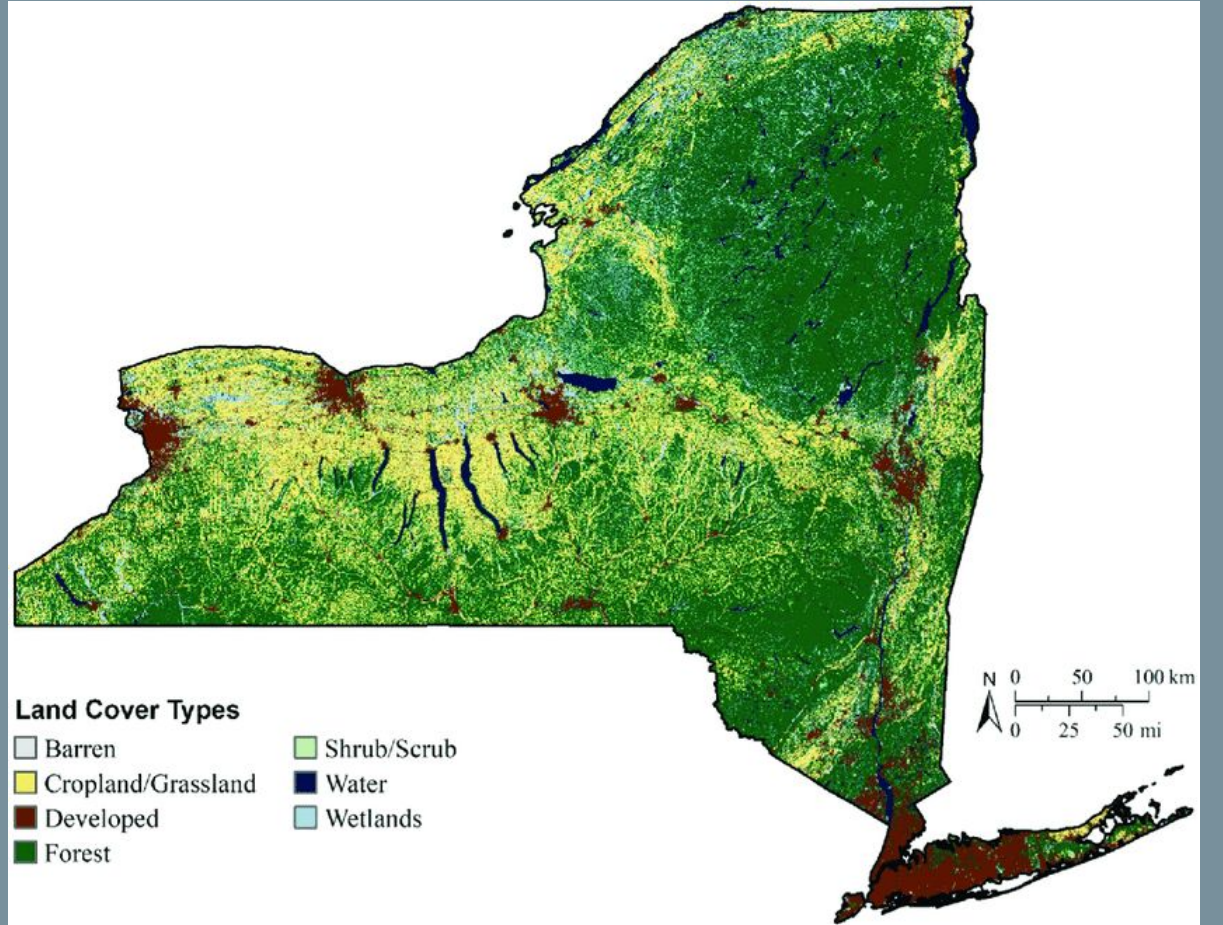
Water and Planes

What role does biome play in airport construction?

Airport terminal hops wetlands

10/24/90
Ever since West Dryden residents discovered the U.S. Army Corps of Engineers and its jurisdiction over small wetland areas, Tompkins County projects have been hopping around to avoid them.

10/24/1990 courtesy of
Tompkins County History Center



Map via <https://www.researchgate.net/figure/Land-cover-types-of-New-York-State->

Unintended Consequences

What are the costs of bigger and better airports?

Since it's opening, the airport was seeing the most flyers during the mid 1990s.

The increase in flyers, meant increased desire for efficiency.

During the winter, de-icing fluid was used on the runways to make takeoff and landing possible.

By **DAVID HILL**
Journal Staff

Full-size jet service at Ithaca's airport will end Sept. 9, when US Airways will replace its two daily flights on 97-passenger jets to the airline's Pittsburgh hub in favor of three daily flights on 50-seat jets flown by a regional affiliate, the company said Wednesday.

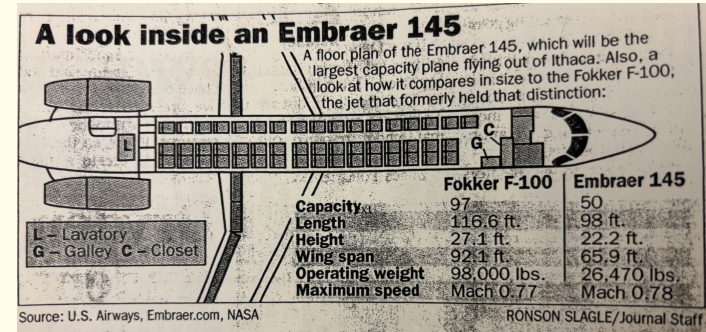
The change is part of schedule alterations tied to US Airways ending its direct presence in Ithaca in favor of only US Airways Express service

1994 Tompkins County History Center (S-338-a)

Cars to planes, and back again

In addition to the new terminal, the airport will have parking for 453 cars — 178 for short-term parking and 275 for long-term parking.

3/26/1994 courtesy of Tompkins County History Center (S-320-a)



1994 Tompkins County History Center (S-338-a)

Solutions

Responding to *The runoff Problem*

The de-icing pad has an underground holding tank for the melting agent, glycol, and an oil-water separator is being used to keep fuel out of the drainage runoff.

The new terminal is expected to accommodate air travel in Tompkins County well into the next century, and it can be expanded if necessary.

Architect Egner notes that part of his charge from planners was to design a terminal that would function for many years but that would also have "a respect for the past."

3/26/1994 courtesy of Tompkins County History Center (S-320-a)

President Michael Stamm.

For one, the Brazilian-made Embraer 154 regional jets that will provide Pittsburgh service are quieter and newer than the nearly 30-year-old aircraft now on the route. Also, no flights will stop in Elmira on the way to or from the hub, saving a half-hour or more of travel time.

The changes also mean two more daily flights to Boston.

1994 Tompkins County History Center (S-338-a)

And yet...

2000s to Today

The airport covers 531 acres with two runways: one asphalt runway (6,977 feet) and a turf runway (2,018 feet)

Airport considers 'green' initiatives

FAA could fund much of project

By Stacey Shackford
sshackford@gannett.com
Staff Writer

6/11/09

COMMENT

Talk about this story
at ithacajournal.com



Tompkins County has long been on the forefront of sustainability, and now it wants to take it to a higher plane — the aviation industry.

Ithaca Tompkins Regional Airport may become the first airport in the country to develop a "green master plan," a 20-year framework to guide future airport development, with the end goal of becoming an environmentally responsible and sustainable enterprise.

The Federal Aviation

Administration requires all airports to prepare master plans, and they are told to consider potential environmental and socioeconomic impacts as part of it.

A green master plan would take this a step further to proactively address environmental issues in a manner that goes beyond the minimum, according to airport manager Bob Nicholas.

"That could include finding

See AIRPORT Page 4A

-2019, the airport underwent a large "expansion and modernization project"

-doubled the size of the terminal.

-\$34.8 million project that added amenities: a new café and bar, outdoor seating area, additional gates and jet bridges, an indoor playground, conference rooms, and a pet relief area



Ithaca Tompkins International Airport. "About." *Fly Ithaca*, <https://flyithaca.com/information/about/>. Accessed 22 Apr. 2025.

Economics/Sustainability Today

The airport plays a significant role in supporting the local economy by:

- facilitating business travel
- tourism,
- cargo transport.

-It partners with:
-local businesses,
-educational institutions,
-community organizations
to promote economic growth and regional development

-Recent terminal renovations have incorporated energy-efficient systems, and we continue to explore innovative ways to minimize our environmental impact.



Tompkins County. *Ithaca Tompkins International Airport*. Tompkins County Government,
<https://www.tompkinscountyny.gov/Resident-Services/Ithaca-Tompkins-International-Airport>. Accessed 22 Apr. 2025

Fuel Burned 1960-2020

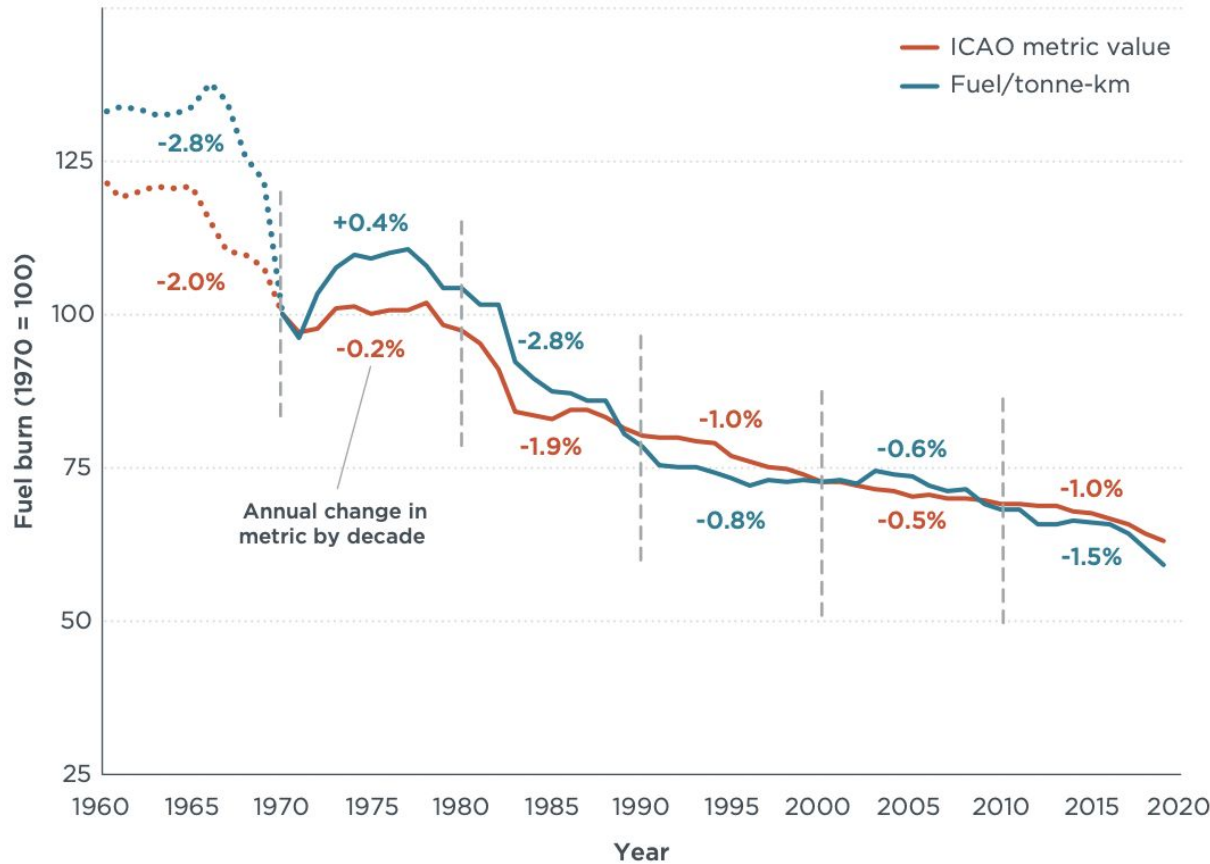
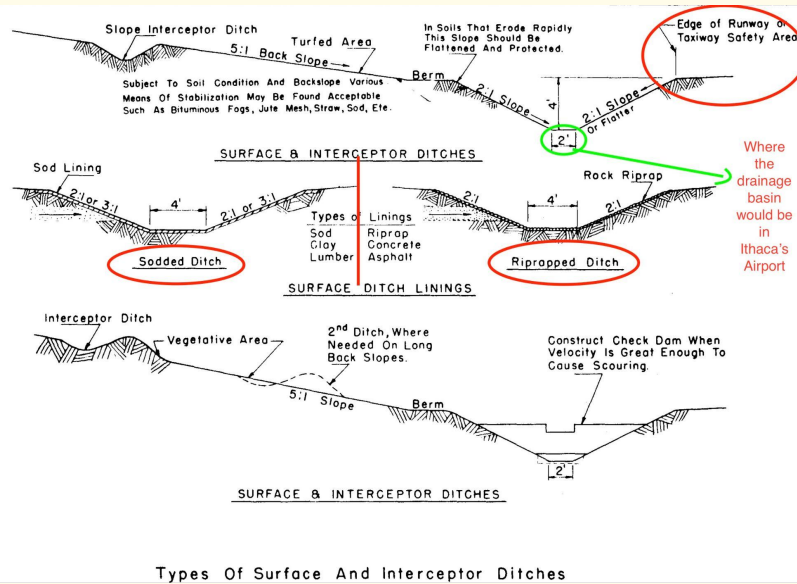


Figure 3. Average fuel burn of new commercial jet aircraft, 1960 to 2019 (1970=100)

Zheng, X. S., & Rutherford, D. (2020). *Fuel burn of new commercial jet aircraft: 1960 to 2019*. International Council on Clean Transportation.

Today's Regulation Standards

[According to the Federal Aviation Administration]



ACO Airport drainage systems
<https://www.aco.co.za/products/airport-drainage-systems>



b. Before grading activities are started, the engineer should have complete soil test data of the different soils encountered on the site and data on materials from any borrow sources. As determined from the soil profile and the soil characteristics, the best types of available excavated materials should be so selected and placed to form the strongest and most drainable soil structures beneath and adjacent to the pavement. The more undesirable soils should be placed in the intermediate areas as far removed from the pavements as possible.

c. Gradient design standards are found in:

- (1) AC 150/5300-2A, Airport Design Standards—Site Requirements for Terminal Navigational Facilities.
- (2) AC 150/5300-4A, Utility Airports,
- (3) AC 150/5325-2B, Airport Design Standards—Air Carrier Airports—Surface Gradient and Line of Sight.

[According to the federal aviation administration]
https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_150_5320-5B.pdf

Soil tests are not performed to construct a sustainable structure within the ecosystem, but rather to understand what natural materials need to be replaced or changed to meet the standards of the desired infrastructure. (soil)

End.

