Chatham Airport Commission

Response to Dr. Michael Tompsett's Analysis
"Less Safe Not More"

October 2019

Note: Responses are in blue text.

Fact Check and Analysis
Gale Associates

This document is a Fact Check and Response to an analysis made in October 2019 by Dr. Michael Tompsett, regarding proposals made by the Chatham Airport Commission to update the Master Plan for the Airport (AMPU). That analysis, entitled "Less Safe not More" was widely distributed to residents of Chatham, the Town Manager and Board of Selectmen. The Commission has requested Gale Associates, as aviation consultant, to examine the document and create the detailed and comprehensive review of the analysis, below.

To read the document, the black text contains the original words of Dr. Tompsett's analysis, and the blue text contains comments made by Gale Associates.

Respectfully submitted,

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Less Safe Not More

I admit to having been confused by the different runway approaches and alternatives cited in the AMPU, but soon realized that the consequences of the main proposal, are quite chilling. The AMPU follows FAA terminology and describes different types of runways, which should more clearly be termed approaches, which is the term I use.
Runways and approaches are two entirely different things that are explicitly described in the Master Plan. Equating them for the purpose of this article counters FAA terminology, planning, guidance, and regulation.

Aspects of this discussion are not easy to follow, but the table on the next page, which shows the parameters of the different types of approaches should help. It is claimed that the FAA accepted the category of 'non-precision with vertical guidance', being demanded in the AMPU, because it "avoided the paperwork" (737Max comes to mind) of approving precision approaches, which also use vertical guidance.
The only approaches labeled "precision" by the FAA are those that are guided by ground-based transmitters. The AMPU proposals utilize GPS technology that does not require ground-based equipment to be installed and maintained at the airport. Further, the existing obsolete ground-based non-precision Non-Directional Beacon (NDB) would be eliminated, creating space for a possible solar array or other revenue producing activity on airport property. Phrases such as "It is claimed" should be appropriately cited.

My discussion is based on requirements contained in relevant FAA advisories, and not on assumptions about new technology for vertical guidance, or horizontal guidance used to reach the Airport.
The volume of charter/taxi planes using Chatham has been increasing in recent years, probably in violation of FAA regulations,

Charter and similar operations have not been increasing at CQX in recent years. In addition, the FAA does not regulate the number of such operations at CQX. Data collected from commercial landing fees at the Airport show that Charter operations over the last 7 years have remained relatively flat. The Airport Commission, through FAA Grant Assurances is tasked with making sure that the "airport is available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport." Lastly, FAA New England Region and Massachusetts Department of Transportation Aeronautics Division are participating in the development and funding of this Master Plan. Neither funding agency has brought to the Airport Commission's attention any such violation of FAA regulations as claimed by the author.

and is leading to complaints about noise and disturbance day and night. The charter/taxi companies (6 advertise on the Airport website) in association with the Airport Manager or a private investor, must be the driving force to having the AMPU legalize and enable an increase in their activities.

It is of utmost importance to point out the **fact** that the Master Plan **does not** in any way, shape or form, "legalize" any activities now or in the future at the airport. It is not a legally binding regulatory document.

There could also be an increase in the future volume of traffic, arising from some charter/taxi operators, who only own one plane, and new schemes of fractional ownership, such as run by PlaneSense, Inc.

The Chatham Municipal Airport is identified in the National Plan of Integrated Airport Systems (NPIAS)[1] report to Congress, as an airport that is critical to the national transportation system that contributes to a productive national economy and international competitiveness. It is important to note that the FAA does not control which routes or airports airlines serve. Nor does the FAA dictate or limit where privately owned aircraft can fly. As forecasted in Chapter 4 of the Master Plan in section 4.7.2.4, the Airport estimates that the annual number of operations is only expected to increase by approximately 1,174 operations by 2038. Volume of traffic is influenced by a wide variety of factors. Actual volume has fluctuated with the health of the overall economy.

The proponents of the AMPU do not plan to contribute to the cost, and any financial benefits would only go to the non-resident Airport Manager and the charter/taxi companies.

Financial benefits of the airport accrue to the entire community. In 2019, MassDOT/AD updated its Airport Economic Impact Study. According to the 2019 update, the state's 30 general aviation airports are responsible for 5,166 jobs and an economic contribution of more than $630 million. Estimated economic contributions of CQX include the following: Total Employment- 156; Total Payroll- $4.777m; and Total Output- $13.919m.

Clearly instrument landings in poor visibility at a properly qualified airport such as Barnstable, are safer than visual landings under those same conditions of poor visibility,

Under FAA regulations, CQX is "properly qualified" to support operations under a wide variety of weather conditions, day and night. Concerning the concept of "instrument landings FAA recognizes only instrument approaches. ALL instrument approaches at Barnstable or Chatham become visual landings for the final landing phase.

but the same conclusion cannot be applied to Chatham Airport, because it does not have the same safeguards, despite duplicitous statements by an Airport Commission member.

[1] https://www.faa.gov/airports/planning_capacity/npias/reports/

"Safeguards" for each airport are different, and relate to the types of procedures that must be followed. AMPU proposals would substantially increase the safeguards in place at CQX.

As we shall see, it is inconceivable that landings in poor visibility in Chatham, could be safer than those made under visual flight rules.
Neither Gale Associates nor the Airport Commission has ever claimed that landings in poor visibility are safer than those conducted under visual flight rules. Operations in poor visibility at any airport are less safe than those that are conducted in good weather. As an analogy, driving in the rain is less safe than driving on a sunny day, but that does not mean that it is unsafe or that it should be forbidden.

Under visual flight rules, the minimum descent height (MDH) above the runway threshold is 600ft.
Under Visual Flight Rules, there is no regulatory reference of a minimum descent height (MDH) under any conditions. Aircraft are free to descend to a height of 0' above the runway, which is what happens when an aircraft lands.

The AMPU cites instrument landings in poor visibility, with an MDH of 200ft, which would be less than 100ft above the houses on Great Hill,
The AMPU makes no such statements. Aircraft would fly over homes at exactly the same height as they do today.
which, in addition to being a major noise nuisance, is obviously much less safe.
The AMPU proposal, will reduce noise and is shown to be eight times safer in aviation studies (See AC web site).

Additionally the FAA writes that "Single-pilot operations can be much more challenging, because the pilot must continue to fly by the instruments, while attempting to acquire a visual reference for the runway", while flying at over 100mph.
Single pilot operations are always more challenging than those with a co-pilot, like charter operations. The speed at which aircraft approach the airport for landing is dependent on the type of aircraft.

Straight-in flights from 10miles away are being proposed, but without a control tower, pilots cannot be sure that there are no other planes taking-off or landing.
Pilots are cleared by radio contact with Air Traffic Control during times when instrument flight rules are in effect. Air Traffic Control, which controls air traffic from a remote location, monitors the airspace around an airport and ensures there are no other aircraft in the airspace around the airport, and no one is cleared to take off until the approaching aircraft is safely on the ground.

Pilots do not always use their radios.
All aircraft operating under IFR must use radios. Only when conditions allow flight under Visual Flight Rules are aircraft allowed to fly and not use radios.

In the past I and others witnessed several scary accident scenarios namely: a turbo-prop flying right underneath skydivers in the air; 2 planes approaching together and a third taking off flying towards them; planes frequently takeoff and land in opposite directions within minutes of each other.
The incidents the author cited, even if true, do not relate to instrument approaches, which are carefully controlled by Air Traffic Control.

The 5 ton commercial Pilatus P-12 9-passenger turboprops, which frequently use the Airport day and night, require 2602ft of runway for takeoff, which is not much less than the 3000ft available in Chatham. This plane carries 400 gallons of fuel, so a small over-shoot or undershoot would be disastrous for residents or visitors in West Chatham. This plane is twice

the weight of the AMPU design aircraft, which should also give significant pause when considering runway lengths etc.
The design aircraft (Beech Barron B-58) is strictly the aircraft, or aircraft with similar characteristics (wingspan, tail height, approach speed, etc.,) that utilize the airport the most frequently (500 operations or more) for which the FAA applies geometric design standards. This **does not** preclude smaller or larger aircraft from utilizing CQX. While the author cites that the Pilatus P-12 requires 2,602 ft of runway for takeoff the statement does not acknowledge many other critical factors that influence the need for an increase in runway length or even less runway length, such as, runway height above sea level, takeoff weight, and temperature. This statement also ignores many other influential factors such as Takeoff Run Available, Accelerate-Stop Distance Available, Takeoff Runway Available, etc. These factors are all specified by the FAA in the Operational Specifications for Part 135 charter operators. Again, it is important to note that the FAA does not control which routes or airports airlines serve. Nor does the FAA dictate or limit where privately owned aircraft can fly. Lastly, please note that the Chatham Municipal Airport has compliant Runway Safety Areas that are specifically defined for reducing risk in the event of an undershoot, overshoot, and/or excursions from the runway. **The Airport Commission has no authority to determine which aircraft utilize the Chatham Airport.**

The FAA strongly urges maintaining Runway Protection Zones (RPZ), better called People Protection Zones, empty of people and buildings “to enhance the protection of people and property”. These zones for the present visual runway in Chatham extend 1200ft from the end of the runway, in blue in the figures below. Contrary to promises made in grant assurances to the FAA,
The Town of Chatham has not been notified by the FAA that it is in violation of any grant assurances. The FAA defines Runway Protection Zones as an area at ground level prior to the threshold or beyond the runway end to enhance the safety and protection of people and property on the ground. Per the FAA Grant Assurances, the Airport Commission is tasked with taking appropriate action to assure that the airspace required to protect operations to the airport are adequately cleared and protected by “removing, lowering, relocating, marking, or lighting” hazards. This Master Plan has identified the location of trees that obstruct the airports approach surfaces. As a result, through this Master Plan, the Airport Commission is taking steps to address such hazards to pilots, passengers, and neighboring properties.

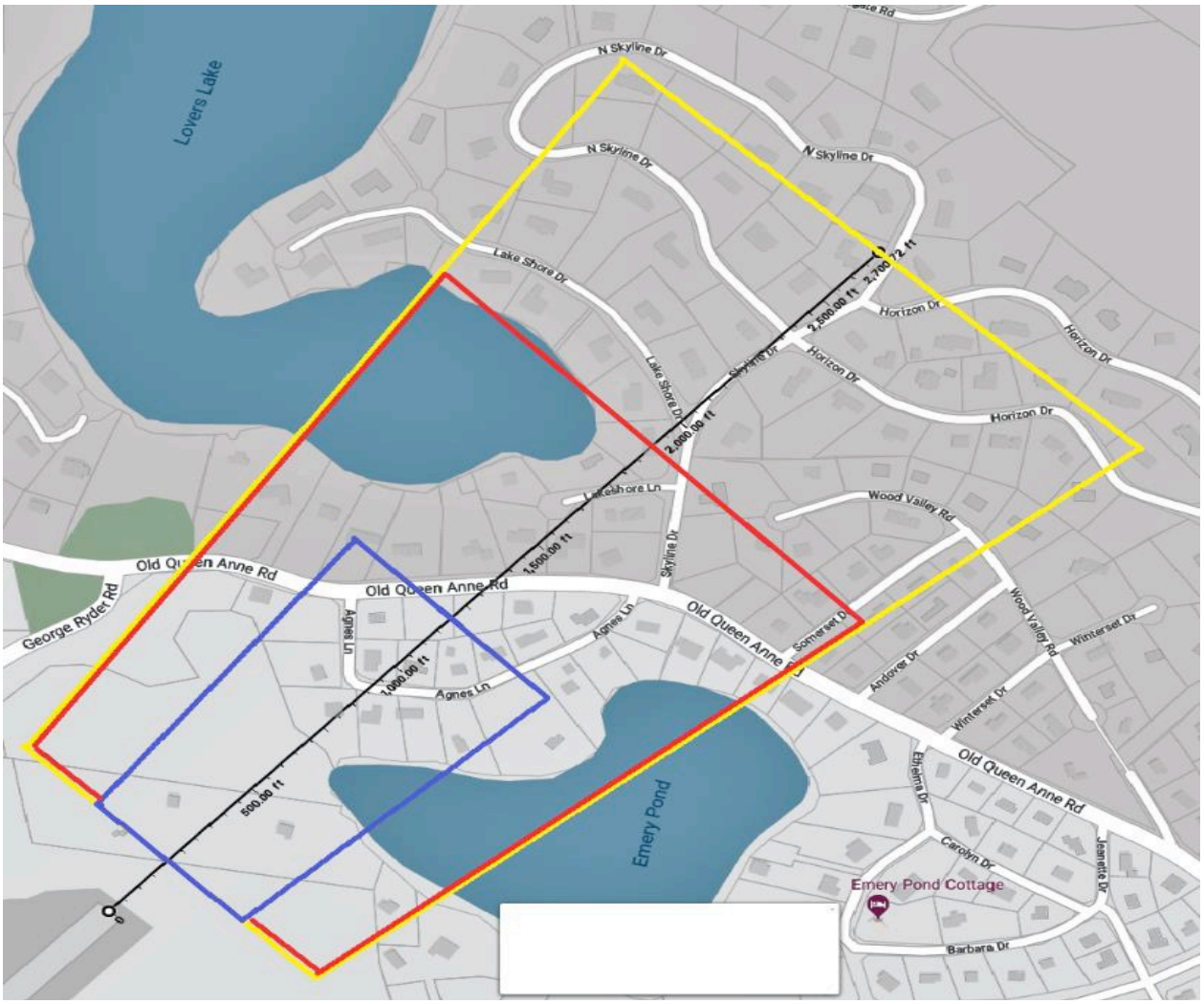
these zones have been heavily developed with stores, offices, apartments and 20 homes. However non-precision approaches without vertical guidance, and precision approaches with vertical guidance are regarded as much less safe by the FAA, which recommends areas much larger by 3.6 in orange, and 5.7 times in yellow respectively, in the figures below.
First, the Master Plan does not propose “precision approaches.” Second, the figure cited below is completely taken out of context and the author has inaccurately applied the wrong design aircraft in Table 3-5 *Runway Design Standards Matrix* of FAA AC 150/5300-13A, which results in an overstated Runway Protection Zone. This gives the illusion that the Airport would require RPZ’s 3.6 to 5.7 times larger than they currently have. This has been proven inaccurate. This contradicts expert opinion of all competent, expert aviation authorities. The AMPU proposes recommended approaches that are much safer than those currently in use. These approaches are in use at thousands of small airports without a control tower. The larger runway protection zones cited by the author apply to airports with larger design aircraft and approaches with lower visibility minimums and do not apply in Chatham. FAA representatives have toured and inspected the airport on many occasions without any specific criticisms or comments about the RPZs. In addition, the FAA has denied any complaint about grant assurance violations by Chatham.

These zones now include restaurants, a medical center, offices, apartments, stores and over 100 homes. Hence it would be totally irresponsible for human reasons, and negligent, for insurance purposes, to disregard the FAA directive, by allowing 6ton passenger planes to make instrument landings without a safe environment, and put many more people in the RPZs at risk of an overshoot or undershoot accident.

Again, the FAA and MassDOT/AD are participating in the development and funding of the Master Plan. There have been no such "directives" as asserted by the author from either agency against instrument approaches. Further, the author suggests that the Airport Commission has the authority to implement approaches, which is incorrect – the FAA is lone agency that can authorize landing approaches. Aircraft have been making safe landings for many years with the current approaches. The new proposed approaches would increase the level of safety. It would be irresponsible for the Airport Commission to reject the safer approaches.

Continue to graphic on next page.

The graphic below incorrectly displays the extent of the RPZ at the Rwy 24 end as it is based upon an incorrect assumption of a change in Design Aircraft (which is not proposed) to one that cannot be accommodated at Chatham Municipal Airport.



The graphic below incorrectly displays the extent of the RPZ at the Rwy 6 end as it is based upon an incorrect assumption of a change in Design Aircraft (which is not proposed) to one that cannot be accommodated at Chatham Municipal Airport.

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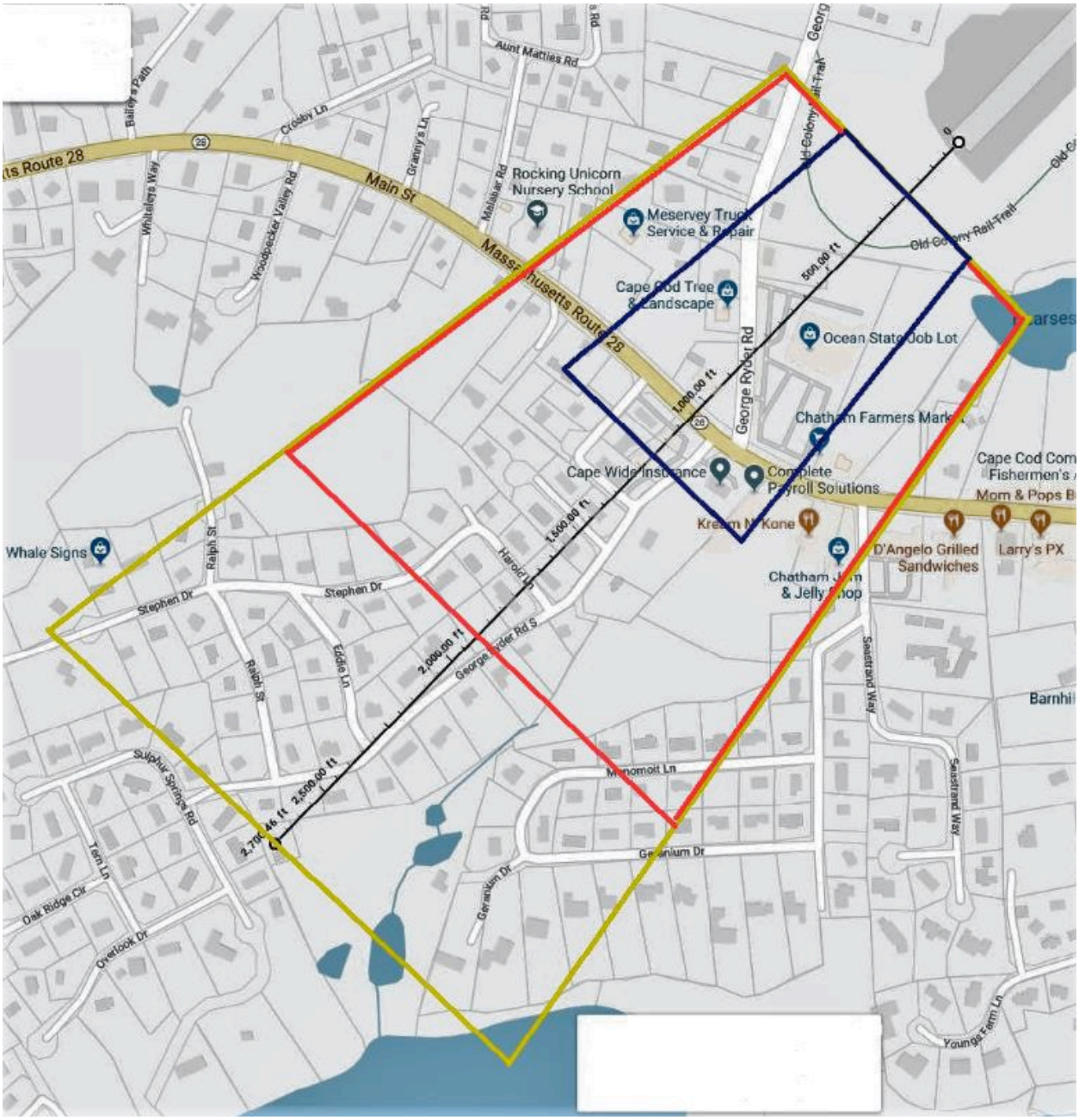

Parameter	Visual	Non-precision With Horizontal Guidance	Non-Precision with Vertical Guidance	Precision Horizontal and Vertical	AMPU
Runway	3200	3200ft minm.	?	4200ft	3000ft
Slope	20:1	20:1	30:1 maxm	34:1	<30:1
Visibility	>1mile	>3/4 to <1mile	?	<3/4mile	<3/4mile
Visibility Straight-in	---	>1mile	?	<3/4mile	<3/4mile
Minimum Descent Height	600ft	>250ft	250ft	200ft	200ft
Primary Surface	250ft	500ft	?	800ft	500ft
RPZ	13.7acres	49acres	?	79acres	**ZERO**

This table is presented without citation and inaccurate when compared to standards for instrument approach procedures in FAA AC 150/5300-13A.

The category of 'non-precision with vertical guidance' was introduced by the FAA with the slightly larger slope of 30:1, compared to 34:1 required for a precision approach, but with the absolute condition that no obstructions protruded through it. "When objects exceed the height of the 30:1 slope, an approach with vertical guidance is not authorized."
Any and all decisions on the proposed new approaches will be made by the FAA – no other entity, not the Town or the Commission, can make this determination.

Now Great Hill is close to the runway on the north side, under the flight path and 70ft above the runway threshold. The AMPU shows a 30:1 slope for the approach surface, despite that being totally outrageous over Great Hill. That surface is only 20ft above the ground and below the rooftops of at least 2 houses at the top of Great Hill, so that the houses protrude through it. The actual approach angle or glide path is a 20:1 slope, which is much higher. **The 30:1 "surface" is the bottom of a safety buffer beneath the glide path**. Preliminary surveys indicate that no homes in Chatham protrude through this surface. Detailed final surveys and community input would be conducted prior to any implementation. The Airport Commission has resolved that no homes on Great Hill would be adversely affected by straight in approaches to CQX. Any application for approaches would specify a higher glide path than the standard 3.0 degrees, thus obviating the need for any Avigation Easements on Great Hill.

That disallows a 'non-precision with vertical guidance' approach for the runway. Even on the south side, the approach surface would be at roof-top height of Ocean State Job Lot and only 33ft above route 28.
Again, any decision about the proposed approaches rests with FAA, not the Commission.

The specifications for a non-precision approach without vertical guidance are a minimum descent height of 250ft and visibility >3/4 mile, but the AMPU references a Minimum Descent Height of 200ft and visibility of 3/4mile. These are close to the specifications for a precision approach with both horizontal and vertical guidance, for which the FAA requires a 4200ft runway and a 34:1 approach slope. For a non-precision approach without vertical guidance, the FAA

requires a minimum 3200ft runway,
The AMPU does not reference a Minimum Descent Height of 200 feet – it does not reference a Minimum Descent Height at all. It references a minimum ceiling of 200 feet, which is not related the height to which a landing aircraft can descend. Non-Precision Approach runways are "generally at least 3,200 feet. However, runways as short as 2,400 feet could support an instrument approach"
and the FAA design process can require a longer runway.
There is no FAA requirement for an approach without vertical guidance

The AMPU claims that a waiver would be requested in order to use Chatham's 3001ft runway. The author appears to be referencing the FAA's Modification of Standard (MOS) to airport design, construction, and equipment. Any FAA approved MOS would result in an acceptable level of safety as determined by the FAA, not the Airport Commission or public. There are numerous airports that have runways less than 3,200 feet and still have the AMPU proposed approaches. That is why it is worthwhile to consider this option. We do not know all the factors that will be taken into account in a detailed analysis conducted by the FAA. The FAA has exclusive responsibility for assuring the safety of any approaches that are implemented at an airport.

Because the AMPU is seeking precision performance parameters, shown in the table, and these require a 4200ft runway, this would clearly be an enormous compromise on safety, for planes and especially for people on the ground.
The AMPU does not propose "precision performance parameters". Again, safety determinations are made by the FAA.

The table shows how impossible or sub-marginal every aspect of the AMPU proposal is.
If any of the AMPU proposals is impossible or sub-marginal, the FAA will certainly not approve them.

The AMPU aims to allow precision specifications on visibility and minimum descent height, without any of the safeguards of a precision approach such as 79 acres of empty Runway Protection Zones at the ends of the runway. Since the same specifications are being cited, including a 200ft descent height above runway threshold elevation, 'non-precision with vertical guidance' should be treated like a precision approach with a 4200ft runway, a 34:1 slope and a 79acre RPZ, but all that is impossible in Chatham. Even the requisite 30:1 slope cannot be met. Instrument approaches require longer, wider and lower slopes than visual, and the demands for 46 avigation easements and the much lower minimum descent height of 200ft over runway elevation, which is only 130ft above houses on Great Hill indicates that planes would be flying lower. We can see this by considering a plane's glide path. If the pilot has to wait until 200ft above the runway on a foggy day to see the runway that is 100ft above the houses on Great Hill. If he/she begins a default 30:1 descent before the hill, the plane's height above the houses would be ~30ft. The alternative would be to stay at 130ft above the hill and, in the case of a P-12 turboprop, make a maximum descent of 8□. Neither is obviously safe or desirable. If the pilot does not see the runway at 200±25ft, he/she would have to declare a missed approach and noisily accelerate. This demonstrates that in poor visibility planes would fly much lower, just a few feet over our houses, and much less safely than small prop plane in a visual environment.
This entire analysis in the preceding paragraph is incorrect and without citation. The FAA would never allow it if these points are correct. The AMPU proposals would have aircraft flying at their normal approach speeds, and at exactly the same height over homes that they do now. They would be safer because there is no need for performing last minute maneuvers before landing. The environment will be quieter because the aircraft will overfly 90 percent fewer homes. Further, the AMPU does not seek "precision approaches," would not require an RPZ of 79

acres, would not require 4,200ft of runway, would not require a 34:1 slope and would not require a plane to be 30ft over homes. Nowhere in the AMPU are these criteria proposed.

It is beyond reprehensible to spend $10M for less safety, when this money would be much better spent elsewhere, in order to save a few taxi-fares from Barnstable.
First, the original figure is $5.2M, not $10M. By raising the glide path and eliminating the need for Avigation Easements on Great Hill, the revised figure will be below $3M. Second, the spending is for more safety, not less. Third, the local share of this expense would be 5 percent of the total or around $150,000.

The proposal would destroy over 12 acres of town owned wetlands and woodlands, and private environment. It is a slippery slope, since there are demands for another $1M for jet fuel storage, $5M for a terminal building, which like the SRE, would probably double in actual cost. Spending ~$20M on any Airport, from the business point of view could only be justified with much more charter/taxi traffic ie for a regional airport. This would bring so much noise over all of Chatham and is complete anathema to the Town.
This conclusion is contradicted by analysis done by the Airport Commission. Any traffic increase created by having better instrument approaches would be insignificant. The figures are not supported by any data or analysis. In accordance with the National Environmental Policy Act, Massachusetts Wetland Protection Act, and Cape Cod Commission regulations, the Airport Commission simply cannot "destroy over 12 acres (or any number of acres for that matter) of town owned wetlands and woodlands, and private environment". Any required mitigation within wetlands would require extensive permitting, mitigation and coordinating with the above-mentioned environmental agencies.

Equally this egregious AMPU cannot possibly be justified for the benefit of the Airport Manager and a vocal member of the Airport Commission! At least 5% or $1M of that $20M would be expected from local taxes.
Benefits of the AMPU accrue to all the citizens of Chatham by preserving and modernizing a vital asset to the Community, which helps to keep Chatham real estate taxes enviably low. Further, the FAA and MassDOT/AD are participants in the funding and development of safety improvement projects identified the AMPU and identified in the Capital Improvement Plan (CIP).

In addition sncee ensuing reduction in assessed property values for the easements would be $5.2M and many of the neighbors would claim a similar reduction, this could also lead to a large drop in recurring property taxes.

By raising the glide path in order to eliminate the obstructions on Great Hill, estimated reductions in property values would be less than $1M and property tax impacts would be less than $6K.

Also there could be costs to the Town of possible increased insurance costs, and maybe having to defend a class-action law suit by 46 families faced with signing obnoxious avigation easements, allowing "noise, fear and interference with sleep" etc.,.
Aircraft have been flying over these same homes every day, for many years. Avigation easements do not change this situation. Such easements merely assure that a property will not have vegetation above a certain height, in return for compensation (fair market value as defined by an appraiser) paid to the property owner. The easements do not in any way change the amount of noise, etc. that is created by aircraft.

We should remember that Gale Associates Inc. are being paid $400,000 to prepare these detailed plans and that their business relies on creating a succession of airport projects, for them to manage!
This statement suggests that the FAA, MassDOT, Airport Commission, etc., are working to enhance profits of private businesses rather than protect and enhance a transportation resource that is identified in the National Plan of Integrated Airport System report to Congress though the FAA and MassDOT/AD Capital Improvement Program. The FAA and MassDOT/AD fund a sequence of airport projects to address identified needed improvements for the enhancement of overall public safety. Each project undertaken at the Airport is carefully reviewed and implemented with sound justification and need.

As far as can be made out, this current runway is authorized as a **Type 2 utility visual runway,** only for use by **Category A** – **small single-engine piston planes** under **visual** conditions in daylight, with landing speeds (1.3 x stall speed) <105mph. As identified in Chapter 1 and 4 of the AMPU, Chatham is a B-I airport.
The CQX runway is NOT a utility runway – it is capable of handling aircraft of up to 30,000 pounds.

We have to ask why large twin-engine piston and even larger turbine aircraft, are using the Airport day and night? The design plane, Beech Baron B-58 has a landing speed >105mph. The aircraft utilizing CQX meet the criteria for utilizing CQX. They can operate on a 3,000-foot runway; weigh less than 30,000 pounds and handle fewer than 10 occupants. In addition, the FAA does not control which routes or airports airlines serve. Nor does the FAA dictate or limit where privately owned aircraft can fly.

The APMU plans to revise the runway
No such plan exists within the AMPU, nor does it propose changes to the runway length, width, orientation, or position.

to **Type 4** for **instrument** day and night approaches for **Category B small multi-engine aircraft** with final approach speeds of 105-150mph. **So the AMPU is trying to legalize what has been happening and more.**
The Airport Commission/Town has no authority to "legalize" anything related to aircraft operations as that is the sole jurisdiction of the FAA. The intention of the AMPU is to preserve and protect the existing airport while improving safety for all. Note, the Beech Barron B-58, the existing design aircraft at the airport is a B category aircraft. The AMPU is not revising this or suggesting the design aircraft be larger.

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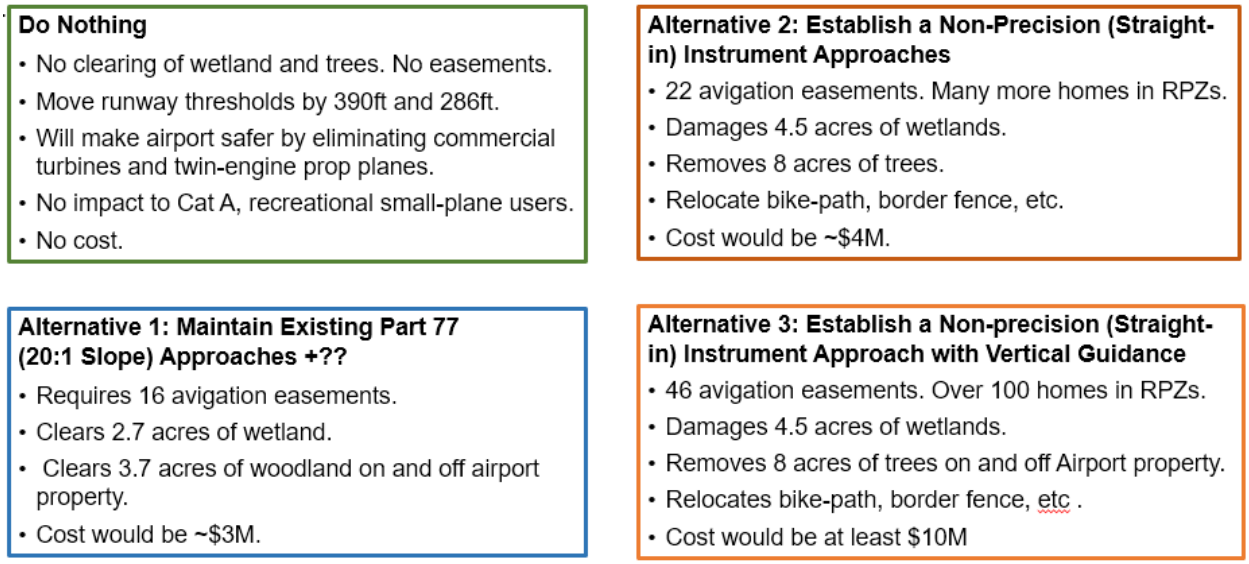

Please note the following comment on the above graphic. The "do nothing" alternative box fails to mention that this would cause a violation of Federal and State Grant Assurances, in other words, a breach of a contract. It also incorrectly states that it would eliminate commercial turbine and twin-engine aircraft. Falsely, suggests the airport is an A category airport and claims without supporting evidence that the airport will be safer.
The "Alternative 1" box incorrectly states the cost and fails to mention that keeping the current approaches may not be feasible with the decommissioning of the "Non Directional Beacon" by MassDOT Aeronautics.
The "Alternative 2" box incorrectly states that many more homes would be in RPZs. The RPZ will remain the same as it has been. Cost estimate is also incorrect.
The "Alternative 3" box incorrectly states that over 100 homes would be in RPZs. The actual RPZ will remain the same as it has been. Cost estimate is also incorrect by at least a factor of 2.

The alternatives in the AMPU are shown in the figure above. Alternative 3 is the one under discussion, because it is the only one that could satisfy the commercial charters and taxis, and that is just not practicable.
The commercial charters and taxis are currently "satisfied" but the AMPU is designed to increase safety for ALL aircraft, not just charters. Commercial aircraft have been serving Chatham for many years. None of the alternatives are a requirement for any aircraft, commercial or recreational. The Commission cannot regulate the operations of charters by FAA regulation.

Alternatives 1 and 2, if commercial flights were still allowed, would encourage them to take risks in poor visibility, fly straight-in, endanger a lot of people living in the RPZs, create noise and nuisance, damage the environment and cost money, while perpetuating the problems. Again, there is nothing in the AMPU, nothing in the proposed new approaches, which would allow or disallow commercial aircraft. There is nothing within the AMPU that would encourage commercial pilots to take safety risks – generally these pilots are under more stringent flying parameters (from their employers) than recreational pilots. And, because they generally operate in pairs, operate at a safer margin than single-pilot aircraft.

It would eliminate the possibility of developing West Chatham as a Village Center or locating the Council on Aging Building there.

The AMPU projects do not result in any change in size of the RPZ as previously asserted. The portion of future West Chatham Neighborhood Center planning proposals overlapping with the RPZ will need to take that into consideration. The proposed location of a new COA facility in West Chatham at 1610 Main Street is located outside of the RPZ.

If all commercial charters/taxis landed in Barnstable regardless of weather, that would be safer for all, and not dissuade anybody from taking advantage of living in or visiting Chatham. A matter of opinion. Perhaps this would be desirable for some airport neighbors, but it does not acknowledge the fact that neither the Airport Commission nor the Town of Chatham has jurisdiction over the type of aircraft that land in Chatham. The statement does not take into account the rights and expectations of those who have utilized such charters for many years, including Chatham residents who use them. The users of charter flights are likely to contribute positively to Chatham tourism businesses.

The plans in the AMPU are not being forced on the Town by the FAA, so this is a local issue. The Airport Commission has the obligation to protect and preserve the airport while strongly considering safety and security improvements. It also is obligated to adhere to all grant assurances, thus eliminating the "Do Nothing" option.

The grant assurances require that "The Town as Sponsor, shall not give up its rights, powers and authority to own and operate the Airport".
Massachusetts Law Chapter 90 vests broad authority in the Airport Commission acting by and through its statutory authority on behalf of the Town (Sponsor) to exercise care, custody and management of the Airport.

Therefore Selectmen need to reconfirm the character of its Airport, to be used for Category A, small-engine piston planes in daylight with a Type 2 visual runway/approach, as reflected in the local bylaw
Chapter 100 of Chatham's General Bylaws pertain to maintaining approaches from physical obstructions for public safety. Again, the existing design aircraft at the Airport, even prior to the commencement of the AMPU is the Beech Barron B-58, which is a Category B aircraft - any change in categorization would require FAA approval.

This is reflected in **Do Nothing**, which is a benign option that has minimal impact on recreational users, but would eliminate the noisy commercial planes that particularly endanger the people living around the Airport. Moving the runway threshold would not affect recreational users, but would save 12 acres of wetlands and woodland. Selectmen should therefore not approve any of the alternatives in the AMPU in any form, in whole or in part, other than **Do Nothing.**
The "Do Nothing" option would not curtail the majority of the present commercial flights, especially ones using the Pilatus PC-12. In addition, it would violate FAA and State grant assurances. The result would be almost certain litigation and a loss of any future funding for such projects. The Town of Chatham may also jeopardize its ability to secure other Federal Funding not related to the Airport. State funding for Town projects could also be in jeopardy.

The AMPU would appear to be trying to force a runway/approach change with precision approach parameters, through the back door at great expense and without all the safeguards. There is nothing trustworthy about the AMPU, which obfuscates and disregards guidelines. It is intended to legalize and attract more of the larger planes currently using the Airport, probably illegally and therefore dangerously. Taxis/Charters would be tempted to push the limits of a 'non-precision approach using vertical guidance', which if implemented would be sub-marginal

at best.
The AMPU does not do any of the things outlined in the paragraph above. The above statement continues the speculation and implication of a less safe airport and makes statements about intentions which are not in evidence. It fails to make the distinction between "precision and non-precision,", and further claims that the Airport Commission has legal authority or the Master Plan itself is a legal document. Both are incorrect statements.

The AMPU is the antithesis of the Airport Mission Statement: **"The Airport is" (was?) "a safety-minded, community-based, environmentally friendly aviation center and a good neighbor." Residents and visitors love Chatham because Chatham is a beautiful old town with great character and a peaceful, relaxing environment, so we need to keep it that way.**
The airport continues to make efforts to be friendlier through initiatives such as the "Fly Friendly" program, and indeed, through the new modern approaches which will serve to reduce aircraft noise.

Chatham Airport is a tiny airport with a short runway, no control tower constrained by a hill, wetlands, woodlands and residential development on all sides, and with over 100 families, who would live in expanded Runway Protection Zones, that should be empty of people. **For all these reasons and those given above, the 'non-precision approach with vertical guidance' is not viable at Chatham Airport. There are already complaints about the noisy turbo-props and twin engine planes landing day and night. The much increased traffic that the AMPU could unleash would severely compromise the safety of residents, visitors, pilots and passengers. It is not safe or sensible to shoehorn unsuitable planes into an unsuitable airport, above all, in unsuitable weather**, when Barnstable is so much safer for pilots, passengers, shoppers and especially, those residents living in over 100 homes situated in the overshoot/undershoot danger zones at the ends of a short runway.
The Airport Commission is fulfilling its mission to create a safer and quieter airport environment within the constraints of federal funding obligations and jurisdiction.

Dr Michael Tompsett