most of what people consider to be long-distance trips would be completed in less than half an hour more people travel around the world than ever before as nearly 150 million passengers took a long-haul international flight per year the Concord once cut that time down even more but what if there were something faster there’s at least two or three credible players who have made very good progress and you know it is our belief that at least one of these players will be able to deliver on the future opportunity don’t think it’ll be here in ten years the market would be there at that price but I don’t think the cost would be there so what we’re talking about here is called point-to-point space travel the idea is you get in a rocket with a couple hundred other people and you blast off above the atmosphere and you spend about an hour traveling above the earth before you come back down all the way on the other side of the planet SpaceX has estimated that they could do a trip from New York to Shanghai in this sort of way in about 39 minutes you can get to most long-distance places like said in less than half an hour and if we’re building this thing to go to the Moon and Mars then why not go to other places on earth as well I recently wrote about a UBS report which estimates th the market for point-to-point space travel could be worth as much as twenty billion dollars there are a number of private companies which will soon be providing the service and then can you build the case from there that there’s enough critical mass where that comfort translates into people using it more regularly but challenge of getting around through point-to-point space travel is a difficulty as old as aviation itself if you look at aviation it started o with the Wright brothers but it was really about 70 years later where we started to have of millions of people utilizing it you know in terms of number there was about half a billion air passengers at the moment we’ve got four and a half billion people were troubled by air if you were born in the late 1800s thinking about getting on a on an aeroplane was probably quite daunting for an individual right now it’s more like Kitty Hawk but it is you know the Pan Am terminal at JFK we have looked at the number of routes which are over ten hours you know in the report we say there are over 800 routes these routes are servicing over 150 million passengers so even a small percent of that market is a material revenue opportunity once this product is delivered well I think the most exciting from outside would be Blue Origin and SpaceX astonish you to start thinking about human transportation point-to-point on earth I think it’s a pretty ambitious there are three big challenges that stand in the way of point-to-point space travel becoming a reality cost logistics and safety on price there’s still quite a long way to go because the average cost of a long-haul international flight according to UBS is about twenty five hundred dollars and for this to really break even a point-to-point space travel flight would probably cost about twelve thousand dollars a person SpaceX and others use their orbital class vehicles for that the trick is to get the price down to something approaching free for all intents and purposes from the current tens of you know tens of thousands of dollars or kill so if it can get it do bucks a kilogram I’ll go I wouldn’t be surprised if they’d pay fifty thousand to go once just to say they did but that’s not a sustainable market and it’s not a very big market frankly but if they did have daily service at that price then it would hit hit the number in your article of twenty billion per year so it certainly it’s certainly tantalizingly close I think it’ll be here in ten years the market would be there at that price but I don’t think the cost would be there because for one if he had those things that could go to orbit or to Australia maybe people would want to go to orbit there are also potential intermediaries between long-haul travel and point-to-point space travel and that comes in the form of hypersonic planes the Concord was the closest thing we had to that which was a supersonic plane which inflation-adjusted cost around twelve thousand dollars a person to fly but hypersonics offer something that’s maybe not quite as fast but perhaps more reliable for people than point-to-point space travel another problem that critics point to is that actually traveling in the airplane itself isn’t the most difficult part of air travel even on a long-haul flight often the most difficult part of flying is getting to and from the airport itself point-to-point space travel therefore doesn’t really quite solve that last mile issue goods transportation so while boss you’ve got this incredible 40-minute from New York to Shanghai or whatever it’s supposed to be like it’s always going to be the last file delivery that kills you and we haven’t heard anything from space X about what they expect their hub-and-spoke models to look like yet so similar to how you would need some sort of connecting flight or connecting on the ground transport when you get somewhere these are really what slows down a passenger go from point not that long segment of the journey people are trying to use private jets to facilitate that last mile delivery problem they want to be able to go door-to-door and it just sounds like paying 20 grand for going from door to train to boat to be a farm to boat to train to door is not a proposed solution for that I think one of the difficulties might be flying over land masses and where the so called space ports could be positioned and of course even if you solve the local transportation problem and you bring the price way down your customers who are likely very wealthy will still be concerned about safety there has to be to some extent what gets people comfortable with the concept of utilizing a spaceship to do long haul travel on earth so clearly there’s a long way to go in terms of you know making sure that it’s as safe as aviation if not safer to get spaceflight anywhere near close to as routine as airline transportations so that they’re you know air traffic control safety just flying off the wrist to get it within a factor of a hundred of the safety of airplanes would take years flying months a day but naturally any new technology faces adversity in the beginning the Commercial Crew program which SpaceX has been working on for NASA has taken almost a decade to come to fruition and that’s only launching a handful of astronauts into the international space station at a time just solution is looking for problem it’s the same skepticism to some extent that we received on Airbnb shared accommodation ev which is not that long ago I don’t think that skepticism say anymore when I talk to investors well I think the thing I was surprised about and you know you know again I’m talking mainly to professional investors was I thought I was going to be met with a lot of skepticism and I’m not saying there isn’t skepticism and frankly rightly so you know until it’s been proven people will be skeptical but I don’t think there was ridicule I think people can see this reality actually and I think what it would really take would be that price and that degree of safety to give them comfort you