FLIGHT SIMULATOR AROUND-THE-WORLD RACE
General Rules FAQ

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The RTW Race Rules are complicated - not because we want them to be, but rather to cover the wide array of situations and contingencies that result from running an air race around the entire world. In order to help race pilots and spectators understand the intention of some of the particularly nuanced sections of rules, we've created this FAQ.

6. Requirements.

a. Routing Requirement.

Q. On the "Continental Requirements", how do we determine the boundaries between North and South America, between Asia and Africa, and between Asia and Europe?
A. The Panama and Suez Canals are boundaries. The Russian border between the Arctic and the Black Sea likewise. The oceanic water boundaries are obvious.

Q. The continental landmass is a tricky concept for some cases. Can you clarify Turkey and the Ukraine and Kaliningrad as being either European or Asian?
A. For most cases, Russia's western national border from the Arctic to the Black Sea will serve as the demarcation between Europe and Asia. For Turkey, the Bosphorus Strait is the dividing line. Istanbul (LTBA) is in Europe, Samandira AB (LTBX) is in Asia. The Ukraine, including the Crimean Peninsula, is on the European continental landmass. Similarly, Scandinavia is part of the European landmass. Kaliningrad, the Russian enclave between Poland and Lithuania, is treated as part of Asia. The French DOM (*départements d'outre-mer*) are not part of the European landmass...!

Obviously, these are detailed and somewhat arbitrary interpretations of the RTWR continental landmass requirements and not proclamations of deep geographic principles.

Q. Does Cyprus or Malta count as Europe? Or Japan or Hong Kong as Asia? Long Island as North America?
A. For purposes of the Race, these islands are not parts of the primary continental land masses.

b. Pilot Requirements.

Q. What do you mean by "advance the baton in consecutive legs"?
A. Advancing the baton means that you are the pilot who completes the leg. Consecutive legs means consecutive completed and authenticated flights. Note that that the presence of intervening incomplete flights between two legs does not change their being "consecutive".

For example, you fly a leg from A-B and stop. Other pilots make several attempts to fly from B-C but fail for whatever reasons. Then you want to claim the baton and fly from B-C. But you may not because you would be the pilot of record for both A-B and then B-C.

Q. If I advance the baton may I then fly wingman in the next flight?
A. No. Only baton-eligible pilots may serve as wingmen.

Q. If I execute a wingman transfer of the baton to my wingman, may I fly in the next flight?
A. Yes you may. You have not "advanced the baton" in this leg.

Q. If I fly wingman on a completed leg, but never hold the baton, may I fly next?
A. Yes.

c. Aircraft Requirements.

Q. If I find a really hot aircraft that seems a lot faster than one might expect, what should I do? Can I fly the plane?
A. Look at the NOTAMS and Special Rules to check to see if the aircraft has already been accepted or not. You should also consult with your teammates about the expected boundaries of realism. If there is any question, please consult with the Executive Committee. You fly the aircraft at the risk of disqualification which might cause irreparable harm to your team.

Q. Can race participants design their own aircraft?
A. Yes and no. Established designers are very welcome. Some of the very best aircraft were designed by modelers who also participate in the Race. (Their models, especially the aerodynamics, are subject to careful scrutiny.) For obvious reasons, individual pilots may not make their own models just for the Race. Any new aircraft must satisfy the qualifying rules. Of particular note is the timing of the release.

Q. The aircraft model must have been "openly available to the general public, either as a commercial product or as freeware, consistently for at least one month before the race." What do you mean by "openly available"?
A. A freeware model should be available at one of the searchable libraries such as those at AVSIM, FlightSim.com, Simviation, or Sim-Outhouse. (Or perhaps other popular sites.) Commercial products must be available for sale from the producer's site or a well-known commercial sales site. If a previously available aircraft model is not longer available during the period before the race, the aircraft will need special clearance in order to be eligible for use.

Q. Is there a limit on wing tanks or drop tanks?
A. The limit on wing tanks is a leg length limit of 800nm, not a capacity limit. It applies only to single and twin engine prop aircraft. This rule incorporates wing tanks, drop tanks, sleeve tanks and other external tanks. The rule permits appropriately modeled tanks of any size for normal legs.

Q. Can I add wing tanks to my aircraft when that aircraft really did have wing tanks in real life?
A. You may not add wing tanks to your aircraft. The wing tanks must be modeled by the original aircraft designer—who may often account for their effects on performance in his design. The

aircraft model should physically show the wing tanks—though there may be exceptions to this expectation.

Q. If I find an aircraft that I really like, can I add a better panel? Maybe add some instruments?
A. Yes. The aircraft's panel and avionics may be improved. Consult with your teammates if you need help here.

Q. How about adding autoland capability to my aircraft?
Note that autoland capability is strongly restricted here. Unless such capability is integrated into the aircraft, you may not add it. If there is any ambiguity, you may not add it. For example, your aircraft model has no autoland but some similar real world aircraft have autoland: you may <u>not</u> add it to your model. You are meant to do your own landings, even in bad weather. That is the nature of the RTWR!

Q. How about aircraft carrier traps. There is a special gauge for this?
A. Again, you may not add or use such a gauge—unless the race incorporates it explicitly.

Q. If the aircraft landing gear are too weak, or it needs better tail wheel steering, or the fuel load is incorrectly distributed, may I tweak the aircraft.cfg file to make it better?
A. No, not if you are just tweaking your aircraft. On the other hand, if you are an experienced designer and wish the aircraft changes to be certified for the Race, you should submit your changes at least one month before the start. (And you should explain what you have done and how it has affected the aircraft to make it more realistic.)

Q. What about racing aircraft, modeled to reflect the performance of their real life counterparts? Such as the Reno Race Mustangs?
A. These are ineligible for the race. In general, these "one-off" aircraft are not part of the race.

Q. The aircraft model needs to be publicly available as freeware or a commercial product one month before the race. What about "donationware" or "shareware"? Why a month?
A. All forms of aircraft are eligible as long as they are publicly available for download or purchase. This requirement gives pilots on all teams an equal chance to fly every aircraft. A month's lead time gives pilots a chance to test out the new aircraft—but gives developers some time to get their models ready.

<u>d. Leg Requirements.</u>

Q. The leg requirement says that the takeoff and landing are measured by the Forum time clock. Can I use the Duenna "Baton Time" instead? It is more accurate.
A. No. The Rules specify the Forum time clock for several reasons integral to the design of the Race. Teams are reminded to ask their forum administrators to set the clock correctly and ensure that the format gives the date and time of posting. Accomplishing the latter is obviously critical.

Q. What about different airport designations in FS2004 and FSX and P3D? Can airports with different designations be used?
A. Yes. The airport's physical location, not its name or designation, is what matters. When passing the baton across simulators, you should be careful that your teammates are using the same physical

airport. If there is a small discrepancy due to the cross-simulator translation, proceed as normal and inform the Executive Committee.

Q. What about airports that exist in one simulation and not the other?
A. You may fly to the default airports in the simulator (FS2004 or FSX or P3D) that you are flying. FSX has a few more airports than FS2004. The same principle applies to P3D.

Q. Distances can vary slightly from one GPS/Flight Planner to the other. What is the official measurement?
A. The official distance is that shown by the MSFS Flight system using the World Map, GPS, or Flight Planner of the pilot's simulator (FS2004 or FSX or P3D). When leg lengths are very close to the limits, you should take care to check to see that the officially measured distance meets the race requirements.

Note that the MSFS flight planner will give different distances between airports – distances that vary by the placement of the aircraft at the airport and the current runway. When the differences matter, then follow this procedure. Using the MSFS Flight Planner, plot a flight plan that includes the relevant airports as intermediate points. Then print the Navlog – which will show the distance between the airports. For example, you want the distance between airports A and B. Generate an MSFS flightplan from X-A-B-Z, where X and Z are the departure and destination airports. The navigation log (Navlog) will give the intermediate distances, including that between airports A and B. Distances are calibrated in tenths of a nautical mile. Keep that degree of precision: no rounding up or down.

e. Flight Simulator Requirements.

i. Eligible Simulators.

Q. Why have we dropped FS2002 from the roster?
A. None of our racing pilots uses it anymore.

Q. P3D is eligible. Why are some features of the Race not fully supported by P3D?
A. The opening to P3D is recent. Not everything is yet compatible. If you are using P3D, you may have to rely on your teammates to accomplish certain tasks. We are trying to accommodate P3D pilots, but cannot get everything right across all three simulators.

ii. Time Settings

Q. Why real time?
A. The real time/real weather requirement puts you in a much more realistic, unpredictable, and perhaps challenging environment. Flying in darkness and handling weather lie at the heart of the race.

Q. If I want to start at some distant airport far from my home time zone, is there another way to get the real time?
A. You can get the real time by looking at the GMT time in the simulator (World|Time) and switching it to match the actual GMT time at that very moment. (You might check

http://www.timeanddate.com/worldclock/ or http://www.worldtimeserver.com/current_time_in_UTC.aspx to obtain the actual time and set FS accordingly.)

For example, it is 1700, or 5:00 pm, in the late afternoon at your home in Amsterdam. You want to start from WSSS in Singapore. The current time is 1600 GMT (Amsterdam is GMT+1). Place your aircraft at WSSS and change your simulator clock to read 1600 GMT. It should now be dark at 2200, or 10:00 pm, in Singapore's local time. Depending on your system, this method of clock setting may be more accurate than starting at your home airport and moving.

Q. What about the difference between my forum time and my computer time?
A. You can fix your own computer system's time, of course. A good idea. In addition, you might ask your forum administrator to reset the forum time to match the world's real time. (Forum times are notoriously inaccurate.)

Q. Might it be easier to have the Duenna synchronize the date and time? That is an automatic process.
A. Yes, that should work. But please check the date and time to be sure that the Duenna got it right. (Sometimes it does not.)

iii. Weather Settings.

Q. Why allow pilots to choose a weather engine other than the default MSFS weather engine?
A. Two reasons. First, P3D does not have a default weather engine. It is important that we start to integrate P3D pilots into our event and thus must accommodate the use of addon weather. And second, the default (Jeppesen) dynamic weather may not be available as we move into the future.

Q. Why do I have to declare a weather engine before the race?
A. The winds and weather play a crucial role in a round the world race. (If you do not declare before the race, you may fly the MSFS default weather engine.) In any case, you must stick with your choice throughout the race. It is important pilots not be able to "choose their own weather" by choosing the most favorable weather engine for each leg.

Teams publicly post the members' weather choices so that all competitors know what is happening.

Q. If I am using an optional weather engine, what weather settings should I use?
A. Whatever weather engine you use, you must use realistic "live" weather. Your engine should be able produce a realism at least as rigorous as the default engine. That is, you should enable 15-minute updates, winds aloft, and turbulence. You may not use a fixed weather setting (that stops weather changes). Nor may you use a wind smoothing algorithm that keeps winds aloft constant. Nor may you fix the weather at your destination airport. Nor may you eliminate haze or wind on the ground. Surprise changes constitute part of the test of your flying skills.

Realism is the standard. Note that you may use the FSUIPC function that slows but does not eliminate the sudden wind shifts. You may, but need not, use your addon weather engine's advanced weather features such as enhanced thermals, invisibility in cloud, wake turbulence, and so forth.

The emphasis here is on live real world weather that is close to the actual experience. Most

important, it must be unpredictable in the sense that if the real world weather changes as you fly, so should your simulated weather.

Q. What should I do if, after I declare my preferred weather engine, I discover that it just does not work for my setup in this racing environment?
A. You must get permission from the Racing Committee to make the switch back to the MSFS default. (If there is no competitive advantage, the Duty Officer will likely approve the request. If the matter is more complicated, then an Appeals Board may be necessary.)

iv. Realism Settings.

Q. Pushing the realism settings far to the right makes flying and landing harder. Why not let pilots choose their normal settings?
A. The race is intended to be realistic: fuel management, turbulence, proper descents, and survivable landings are parts of the race. You want to push the appropriate sliders to the right edge, and then click on the end to be sure that you have reached 100 percent realism. Double check your Duenna to be sure that you are ok.

Q. Why not "all sliders right" to obtain maximum realism?
A. We want to encourage new pilots, whose plane-handling skills may need practice, to join in on the racing fun. Veteran pilots may wish to fly under maximum realism.

Q. Time acceleration? I understand that!
A. Please note that any instances of unrealistic flight times will be investigated and if it is suspected that time-acceleration was used, the flight or flights in question will be declared invalid. Major penalties will ensue.

Q. How about enabling collisions with other aircraft?
A. Do not do this. You are in a multiplayer environment and do not want inadvertent crashes due to other pilots' movements.

v. Realistic Environment.

Q. Realistic environment? When it comes to my scenery settings, I'd prefer to avoid hills and especially trees. What exactly do you mean by scenery settings "at or above the most realistic level consistent with acceptable performance"? May I simply remove autogen and the display of mesh?
A. We would like to encourage pilots to fly in a realistic world. In particular, we want to avoid any competitive pressure to fly over a "bald earth," without terrain or autogen, with merely minimal cloud coverage. On the other hand, we understand that some pilots' computers impose limits on the realism with which they can fly—and they should choose reasonable settings for their machines. So for the moment, we lay out a set of norms. Think of these as minimum standards for pilots with modern computers. They apply to both FS2004 and FSX unless otherwise noted.

This rule is not readily enforced. The Duenna does not record these settings. Nevertheless, to participate in the true spirit of the race, all participants should adhere to these rules. To do otherwise is to cheat on your teammates and fellow competitors.

If you are worried about trees encroaching the runway approaches in FSX, you may and probably should use Jim Keir's "Lumberjack 5x" program to clear the trees on the final approaches of your airports.
AVISM: http://library.avsim.net/search.php?SearchTerm=lumberjack&CatID=root&Go=Search

f. Addon Sceneries.

Q. How about Mesh? Can I update mesh to make it more realistic?.
A. We routinely allow the well-respected FSGlobal, FSGenesis, and Raymond Taburet mesh products. Global packages or continent-wide or regional packages are also allowed as long as they seem accurate. Standard "fixes" for the default or addon meshes are also allowed, as long as they are realistic. (As long as the third-party addon mesh fix is publicly available a month before the race, the fix is allowed.) Unrealistic "fixes" are not allowed.

If there is any question at all, please check with the authorities about your addon sceneries.

Q. There are many difficult airports some of which may be unlighted at night or unequipped with NAVAIDs. May we add or build airports or AFCADs to make our landings easier? In previous years, the Committee has added lights to airports. Doesn't that mean that we can add lights to airports now?
A. Pilots and teams MAY NOT create airports or AFCADS for the race. NOT AT ALL. You can understand this.

Q. What do you mean by "enhance realism" or "widely and publicly available"?
A. We do allow the use of previously-published third-party addon sceneries or AFCAD modifications that are meant to enhance realism and that are publicly and widely available. (We mean that they are available before the race in the searchable libraries at AVSIM or FlightSim.com or SOH or a similar public library.) The key phrase here is "that are meant to enhance realism." When using an addon AFCAD/Airport from the file libraries, the prospective RTW pilot needs to look at the reason for the airport update. If the author says the added features (runways, lighting, NAVAIDs) match real world data—that is fine. If the author says they added lights/NAVAIDS to make the airport easier to land at—that is not fine. Also illegal are expansions of an airport to some future or fictional configuration.   (In all this we focus on the functioning airport. Eye candy in the form of buildings, jetways, and so forth are of no concern here.)

We rely on people to be honest in their airport addons.

Q. What addons are pre-approved?
A. Some key addons in the past have fixed inadequacies in FS2004: the addition of realistic NAVAIDs for major Russian airports, the correction of the runways at Norfolk Island and Lord Howe Island, and the addition of realistic night lighting in the Norway Airports package. (These are all much better in FSX.) These upgrades continue to be allowed.

That said, you must be aware that you may land only at FS9/FSX default airports. There are several quasi-realistic airport packages for China, Russia, and the South Pacific that add airports to the simulated world that are missing in MSFS. The Radio Range 1930s navigation simulation, for

another example, adds a strategic airport in the Aleutians that does not exist in FS9 or FSX. The OZx series adds airstrips for Australia and North America. These airports are NOT allowed. (When you remove these extra airports, you will want to rebuild your FSNav, FS Commander and Plan-G databases before the race.)

In some previous years the Committee created unrealistic supplementary lighting packages that allowed teams to land at required airports in the dark. **These race-specific packages are not to be carried forward from prior years.**

The long and short answer is that you cannot create airport facilities for this race but that you can use realistic third-party addons that are already published commercially or available in the libraries of AVSIM, FlightSim, and SOH.

Q. What about corrections for mesh irregularities around and within the airports?
A. These corrections are treated slightly differently. All users of advanced mesh will experience inconsistencies with the default MSFS airports. The occasional narrow plateau or deep gorge is the price we pay for better mesh. Please understand that airports that are steeply sloped in the real world will always have a cliff at one end and a hole at the other in FS. That is just the nature of how the program works. Not every airport in FS is suitable for use in the Around-The-World Race. Even if the airport is perfectly positioned for one leg to end and another to begin, it may not be suitable due to terrain, in the real world, and in FS.

There are a few third-party "airport correction" packages available, including the payware correction packages by FSPilots for FSGlobal and FSGlobal Vector as well as FSGenesis for the FSGenesis mesh. These are fine. In addition, you may use more specialized third-party fixes for specific airports as long as the correction makes the airport more realistic and the correction is widely and publicly available. For some examples, see the discussion below.

Q. What about add on mesh or landclass and such scenery packages as Ultimate Terrain, FSGlobal, openVFR, and Orbx FTX Vector that modify geography?
A. Again, you may use such models as long as they are aimed at increasing realism. (Mesh and Ultimate Terrain and Orbx and Pilot's Vector users should carefully check airports to see how they fit into the non-default terrain and geography.) The minor changes associated with these packages are unlikely to register an error with the Duenna tracking. If there is such an error, please notify the race marshals immediately. Legs encountering such discrepancies will be accepted as valid.

Q. Can you give examples of addon fixes that correct for errors in mesh and terrain?
FSX pilots may use the elevation correction for Madeira's LPMA. (See John Sousa's lpma_fix.zip at FlightSim.com.) FS2004 pilots may wish to install Christian Stock's elevation correction for Lake Wakatipu near Queenstown. (See your teammates for availability.) The emphasis here is on realism rather than on ease of landing. As you would expect.

Oft-visited Norfolk Island is problematic in both FS9 and FSX. Uncorrected, the island can disappear or appear totally bizarre. Happily, there are several extant corrections for the anomalies. In any case, check the scenery before you commence your leg.

FS2004.
- Ian Thatcher produced a simple fix via a landclass file. This is part of his Australian landclass. The original file is no longer available: see your teammates for a copy of the small landclass file. (Or get Roach's copy...see next.)
- Lawrie Roach designed a Norfolk Island International scenery with Thatcher's landclass fix included. (You can simply install the landclass and ignore the airport, it would seem.) See norfolk_island_v2_ysnf.zip at FlightSim.com and at AVSIM.

FSX.
- Robin Corn, Ian Warren and John Manaras built a full scale photoreal Norfolk Island. See norfolkphotorealfsx.zip at FlightSim.com or norfolk-photoreal-fsx.zip at AVSIM.
- Also, if you have OZX installed and active, you may already have a correction for Norfolk Island.

Q. What about the infamous proclivity of FSX to put trees right on the runway threshold?
A. In FSX you may and probably should use Jim Keir's "Lumberjack 5x" program to clear the trees on the final approaches of your airports. Individual or custom modifications to airports, including "exclude areas" must comply with General Rule 6.f.
AVISM: http://library.avsim.net/search.php?SearchTerm=lumberjack&CatID=root&Go=Search

g. Overspeeds and the Flight Envelope Requirement.

Q. Why the overspeed penalty? How does it get applied? How do I know if I have an overspeed?
A. It appears that FSX does not generate an overspeed-related "aircraft stress crash" in the same way that FS9 does when the pilot exceeds the Mmo (max_mach) parameter. Both simulators enforce a Vne (maximum_indicated_speed) crash. This rule approximately levels the playing field for all pilots. It essentially treats 90 seconds in overspeed as though MSFS had created an overstress crash.

The Duenna tracks the amount of time in overspeed. As you fly, you can assess the cumulated overspeed time by looking at the Duenna panel. And at the end of the flight, you can discover your time in overspeed by looking at the Duenna log file.

The overspeed time, however, is not highlighted in the Duenna's graphical report (the jpg file) nor in the online flight tracker report. A flight with excessive overspeed will show "green" and be reported as a valid flight. Thus, to identify a possible penalty it is necessary to examine the Duenna textfile. A pilot should, before releasing the baton, be sure that he has completed a valid leg (all green) and that he has not exceeded 90 seconds duration in overspeed.

If the pilot notes an excessive overspeed during flight or on landing, then he can execute a straightforward wingman transfer (30 minutes penalty) or abort/restart the flight. After releasing the baton, the team can make a retroactive wingman transfer if that option is available. Otherwise the team must return to the initial departure point or, for a leg of no more than 750nm, take an additional 2 hour penalty and proceed. (This penalty is added to any other penalties, if any, incurred during the leg.) As a pilot, you might want to double check your overspeed before releasing the baton. *You might be especially careful to check for overspeed before releasing the baton after a long leg*.

In practice, this rule means that we shall pay very close attention to pilots who fly jet legs and high speed civilian turboprop legs. ("Warbird" aircraft typically have an Mmo sufficiently high that it rarely matters—but those aircraft are subject to the overspeed penalty as well.)

Q. Does the overspeed duration penalty apply to both FS2004 and FSX pilots?
A. Yes.

Q. What happens if I forget to activate the Duenna or the Duenna software malfunctions and I cannot produce the required Duenna textfile?
A. The Duenna reports the time in overspeed, the Flight Analysis Screen does not. If you are flying FS2004, then the Flight Analysis Screen will likely suffice – FS2004 automatically handles overspeeds correctly for the RTWR. The Committee will decide whether the circumstantial evidence supports a valid leg. If you are in FSX, it may be impossible to verify that you have kept your speed within the legal flight envelope. If you are flying a jet or a mach-limited non-warbird in FSX and you forget to activate the Duenna, go back. If the Duenna fails in mid-flight, you should probably restart. You may appeal but it will be difficult to marshal enough evidence to prove you did not overspeed the max_mach parameter.

7. Baton Procedures

a. Claiming the baton.

Q. Why do we have to announce the aircraft type and model and modeler? In years past this has been an unobserved formality.
A. We may have special restrictions on aircraft and need to know your particular ride. The title of the aircraft, as retrieved by the Duenna, does not identify the actual aircraft. Thus, you are required to announce the type, model, and modeler.

For example, "WombatOne has the baton flying the WBS P-51D," has a different meaning than "Moses03 is flying the A2A P-51H." The latter counts against the thoroughbred leg limit. Obviously, "flying the Mustang" will not do the job. Other examples include: "salt_air has the baton flying the FS2004 default DC-3," or "apollosmith is flying the dcc P-38M," or "buzzbee flying the FlightOne B727-200." Please make the announcement in good faith—typing the extra word or two is not much extra effort. A failure to identify the aircraft will lead to penalties.

Q. What if I forget. Can I add that information later? Is that a documentation penalty?
A. Good form suggests identifying type, model, and modeler on takeoff. If you forget, you may post that information at any time within an hour after you release the baton. (Your teammates may help out by posting the information while you are flying.) If you forget entirely, you are subject to a documentation penalty. If you need constant reminding to identify your aircraft, you may find yourself penalized for an inability to provide timely documentation—all this at the discretion of the Racing Committee. It is your responsibility as race pilot to inform the race monitors about your aircraft. (They do not have the time to conduct an investigation of every leg.)

Q. How good does the aircraft "declaration" need to be?

A. Good enough. From your declaration, an observer must be able to tell immediately that you are flying a legal aircraft. That said, the purpose here is not to create a "gotcha" opportunity. A good faith effort will in most cases suffice as long as you are willing to work with the race monitors to get it right. If you are unwilling to provide the information, then expect a penalty. The purpose is to make everything clear to all concerned.

Q. When the pilot claims the baton, he has to give the departure airport, the aircraft, and the destination. Why? May the pilot change the destination?
A. Providing all this information helps teammates, the race officials, and spectators follow the race. The destination will be important for teammates who cannot fly online. The pilot may change the destination at any time and for any reason and should post the change on the forum. Note that you must indicate not only the airports but also your aircraft. (There is no penalty for accidentally forgetting to provide full airport information— unless it appears that a team is intentionally trying to mislead, in which case a minor penalty will be applied. Public declaration of the aircraft is essential for many reasons.)

Q. Do I have to wait until after I claim the baton before I take off? Or if I'm flying wing, do I have to wait until after declaring "I am flying wing" before I depart?
A. Yes to both. You may not takeoff before you either claim the baton or you declare that you are flying wingman. The reason for this restriction should be self-evident.

Q. If I claim the baton but immediately yield it to a teammate—to share the lead pilot opportunities—does that count as "holding the baton"? Do I retain eligibility to fly as wingman in this leg or fly in the next leg?
A. For the purposes of subsequent eligibility, "holding the baton" means having held the baton for five minutes forum time. Thus, when you immediately yield the baton to someone else your eligibility remains unaffected. (This provision remains from a previous era when pilots ran an uncoordinated race and got a chance to fly by claiming the baton on the forum. It will probably not come into play if the teams remain as well-organized as they have been in recent years. The language will remain for the present. It is meant to allow pilots to defer to another pilot who may not have flown recently.)

c. Involuntary relinquishment of the baton.

Q. Why is the baton automatically free after three hours?
A. Under the General Rules, the longest legal duration for any single leg is three hours. This limit may be overridden in a special rule, such as a Corridor Rule or Wild Card.

Q. What is this about the team being able to transfer the baton or declare an aborted flight? I thought that the baton-holder was in charge.
A. This rule is designed for the "missing pilot" problem. Imagine that you have the baton but suddenly get hit by a power outage and cannot communicate with anyone. Or, alternatively, imagine a sudden real life emergency arises that takes precedence over your "virtual" responsibilities. Without this rule, your teammates would have to wait three hours before re-flying your leg.

Instead, the team waits until after the flight's two hour mark (that is, two hours after the baton is claimed) and then notes if there has been no communication whatsoever for the prior thirty minutes. (Recall that at the two hour mark you are already into penalty time.) Absent any communication, the team may choose to transfer the baton to the wingman or, there being no wingman, to abort the flight. Or the team may choose to wait a while longer.

Please note that the effective "clock" for null communications begins at the 90 minute mark. If the pilot doesn't communicate at all between the 90 minute mark and the two hour mark, then the team may immediately declare a "missing pilot". Planning ahead, the team may transfer the baton to a wingman who has already landed and is ready to post. The actual time for the wingman's flight will thus be two hours thirty minutes (plus any triple time penalty if the posting occurs after the two hour window). Not efficient, but not a disaster.

If you communicate in any way with the team, this option cannot and should not be activated. Communication here includes forum postings, multiplayer chat, TeamSpeak, telephone calls, text messages, telegrams or smoke signals. (Teams may wish to share emergency telephone numbers.) If you are flying offline, post forum updates to your flight—especially in the latter stages of your flight. If you are going overtime, beyond two hours, be absolutely sure that your teammates know.

A decision to abort or to transfer the baton is a team decision. Under this rule, an individual pilot may not claim the baton without the team's having released it.

This special provision limits the damage of such a pilot disappearance by making it essentially equivalent to a normal two hour leg with a crash on landing. It is designed to be used in a rare event, but an event that might otherwise knock a team out of the race.

d. <u>Authentication Procedures.</u>

i. <u>Time</u>

Q. Why only one hour for posting an authentication?
A. Under normal circumstances this time is adequate. And postings need to keep up with the baton. If something extraordinary occurs, you should post the reasons and file an appeal with the race officials.

ii. <u>Procedure</u>

Q. The "Normal Procedure" relies on the race tracking software to work properly. Why use this? What if it fails?
A. The race tracking software allows everyone to enjoy watching the race in real time. Further, the software makes authentication almost automatic—and thus reduces some errors. If the software fails, pilots should post their Duenna jpg and txt files on the Team Forum as was normal in the past.

Q. In previous years, teams have disabled the "online tracking" feature on the Duenna – presumably to fool the competition. Is this allowed?

A. No. You must enable online tracking. Of course, if you are racing offline, then the rule will be waived. And if your connection makes online tracking impossible, please contact the Executive Committee to obtain an automatic waiver.

A repeated failure to enable tracking (after being warned) will result in a minor documentation penalty.

Q. When using the RTWR Duenna, I am supposed to post both the jpg image and the text file. Why do both?
A. The jpg image summarizes the main validation points and serves as a graphic marker of the leg's advance. The text file contains much more technical information that may be useful should any questions arise about the flight's validity. The text file will be especially important if the pilot thinks that the leg should be valid but the Duenna indicates otherwise. (Sometimes this happens. The Duenna is terrific, but it is not infallible.) Posting both to the forum insures that the team has a record of success, even if the Duenna server or tracking system fails.

Q. What if I forget to post the jpg or txt file while I do post the link to the Duenna tracking record?
A. Oh…OK. It is much better to post both the jpg and txt files. But the Duenna tracking link will suffice in a pinch. Of course, if you forget to post either of the complete records, then you have failed to authenticate.

Q. What happens if I take off and then realize that the Duenna has not started correctly? Should I restart the flight or transfer the baton? Will my leg count when I complete it?
A. There is no set answer here. If this is the first time that this has happened to you, go ahead and post authentication using the Flight Analysis screen and explain your situation. If you have already made this mistake, you might consider restarting. (A word of advice: check that your Duenna is "all green" as you climb out of your departure airport. If it is not, then you can restart very quickly. Executing a takeoff "Duenna Tracking check" is a task often accomplished by a non-flying teammate.) FSX pilots flying a jet or mach-limited turboprop will almost certainly want to restart.

Q. What if the Duenna will not work on my particular setup? May I fly using the Flight Analysis screen as authentication? Will I have to explain every time?
A. You may fly FS2004. The Flight Analysis screen is not ideal but it will do in a pinch. Just let the race officials know about your situation and things will be fine. No worries. Note, however, that if you are flying FSX, then the Flight Analysis Screen may not be sufficient. (See "Overspeeds and Flight Envelope" above.)

Q. What if the Duenna does not work properly for my simulator (FSX)?
A. Use the Duenna in its partial form or use the Flight Analysis screen option, and note that you are using FSX.

The authentication process is your way of letting your teammates and fellow competitors know that you have completed your mission in accord with the rules and restrictions. You want to use the best means possible. Depending on the technology, that may mean the Duenna or it may mean the Flight Analysis screenshot. Please make a serious effort to use the standard procedures. Several years of experience suggest that the Duenna will work well enough for everyone.

Q. I want to authenticate my flight but am having technical difficulties. Say my access to the forum attachment system is broken. Is there anything that I can do?
A. Yes. You may have a teammate post your authentication. To get the Duenna files or the Flight Analysis screen to your teammate, you shall have act quickly, perhaps via email. If this happens, either you or he should post a full explanation. (In extreme cases, you may appeal to the Racing Committee. The aim here is to authenticate valid legs, not to deny valid legs.)

Q. The procedures ask for the Duenna txt files to authenticate Team Events. Why?
A. During team flights, there will be so many aircraft in the air that it will be difficult to sort out the authentications if only the tracking link is provided. Of course, the officials might handle a single instance of not-quite-perfect posting – so there may be no penalty for the isolated discrepancy. But good form is to post the Duenna txt file onto the teams' forum. We do not want a "gotcha" on the authentication, but we do want easily accessed records.

c. Failure to authenticate.

Q. I successfully complete a leg but merely forget to post the proper authentication within the one hour time limit, what happens?
A. The baton returns to the arrival airport of the last authenticated flight. Your leg and all subsequent legs are voided. Or you might invoke the wingman transfer rule as outlined below. It is worthwhile for you and your teammates to check and double check the authentication.

Q. If I forget the authentication but the Duenna tracking system has a record of my valid leg, then I am ok, right?
A. Proper authentication is essential for the integrity and flow of the race. If you have unimpeachable confirming evidence which you or your teammates produce at a later time, then the leg will be considered valid but the team automatically incurs a documentation penalty.

Q. I successfully complete a flight and discover that the Duenna claims that the flight is invalid. What should I do?
A. First, take another look at the Duenna text file to see if you have actually made a mistake and not noticed it. (You might ask a teammate to take a look as well.) Look carefully. If you indeed have an invalid flight, take the appropriate action.

If you know that your false reading is due to a known and acknowledged problem with FS and the Duenna, then post your authentication, note the problem, and continue on your way.

If you believe that the Duenna has a false reading but the cause is not known and acknowledged, please post (a) the Duenna jpg, (b) the Duenna textfile, and (c) the FS Flight Analysis Screen. Explain what happened in your authentication and immediately contact the race officials. No one in the race wants FS's mysterious little bugs to spoil anyone's experience. The team should proceed. (However, if the available evidence clearly indicates a genuinely "invalid flight", then rule 7(e) will immediately come into play—perhaps invalidating subsequent flights. So do examine the record carefully.)

Q. The baton carrier has the authority to decide what to do when a valid authentication is not posted. This is the next pilot, not the pilot whose authentication is in question. Why?

A. The baton carrier makes the final decision. However, he/she will want to be in full consultation with other team members present, including the pilot and wingman of the prior leg. Note that if the authentication is inadequate, not only will the prior leg be voided but the current leg as well.

Q. If the flight cancellation provisions don't apply to authentications under review, does this mean that there is no penalty at all?
A. No. If the flight is subsequently judged invalid, after the pilot has made a good faith effort to post the authentication, the race officials will determine a remedy that essentially balances the false flight and imposes a small cost appropriate to the mistake's magnitude. For example, upon reaching the next airport the team may have to stop and re-fly the reviewed leg (using an eligible pilot and under specified sunlight and weather conditions) before proceeding. In addition, a modest time penalty likely will be applied.

Q. Flights that are unchallenged for 24 hours automatically become valid? Does this really make sense?
A. This provision in effect sets a "statute of limitations" on challenges. If a pilot makes an inadvertent mistake that is unnoticed for more than 24 hours, the flight will be valid. If you see a potentially invalid flight, yours or someone else's, you should quickly notify the race officials and ask for a review.

Note that this is the "normal" rule. In extraordinary circumstances, where there appears evidence of intentional cheating, the Executive Committee will take appropriate action regardless of the time and date.

Q. The Duenna is very complicated and it is not absolutely fool proof. Isn't there a better way?
A. The Duenna was specifically written for the RTW Race. (Thanks to JM for his wonderful work. And to EW for his excellent update.) We all appreciate having a program that will serve as a "reminder" of the rules and restrictions. The racing challenge works better if everyone is flying under the same rules and restrictions. But neither the Duenna nor the Flight Analysis Screen or any authentication system will take the place of pilots' flying on their own personal honor—doing things correctly and fairly. It is expected that all pilots will follow the rules to the best of their ability for the greater good of the race and the enjoyment of all.

Equally, if you have flown a complete leg and everyone believes that everything is in order, the whole racing community wants you to get credit for what you have done.

8. Incomplete Legs.

Q. If I am flying and completely lose my connection to the internet, may I transfer the baton or abort the flight by some other means than the team forum?
A. Yes, in extreme circumstances this would be allowed. A telephone call or text message to an online teammate will do the job. The reasons for this transfer should be clearly and immediately communicated to the Racing Committee and to the rest of the community by teammates who retain internet connectivity.

9. Wingmen.

Q. If I am flying wing, do I have to follow the rules – even if I never hold the baton?
A. Yes. You are an official part of the event and must follow the rules.

Q. Does the wingman have to wait for the lead pilot to take off first? Does he/she have to wait for the lead pilot's landing before landing himself?
A. No to both questions. While the wingman posts his/her status after the lead claims the baton, the rules do not govern subsequent departure and arrival times. Remember that the wingman transfer carries a 30 minute delay—so there is no practical reason for the wingman to "race" the lead pilot. (Teams that feel strongly about the ordering may incorporate "team procedures" to govern the situation. But the official rules do not come into play.)

Q. Does the wingman have to fly to the same destination as the lead?
A. Strictly speaking, No. But observe that the wingman, on receiving the baton, must complete the flight within the same time frame as the original baton holder. On receipt of the baton, the wingman may choose the same or another destination.

Two points: note first that once the wingman lands he/she may not take off and go to another airport. (Once landed, the wingman may not abort and ask another wingman to fly elsewhere!) If the wingman lands at an airport and subsequently receives the baton, the leg is successfully terminated at that airport—the team continues from that location. Note further: if the lead lands, releases the baton to the next pilot, and subsequently discovers an error, a retrospective baton transfer is admissible only if the wingman has landed at the same airport. See below.

Experience has shown the importance of the wingman flying to the lead pilot's airport, completing the backup leg, and posting a proper authentication. Doing so may mean the difference between the team's winning and losing.

Q. I'm flying wingman and the lead pilot has landed: must I land and post? Is it a good idea? What should the post say?
A. The wingman is not required to land and post. However, your posting the arrival will mark the leg timing which may be critical in some cases. You should post "Wingman Down at airport EFGH" and the forum clock will timestamp your landing. Add your authentication to this post. It is common practice now for teams to have their wingmen land and authenticate as quickly as possible. The practice also eliminates the possibility of a penalty for "Failure to Authenticate" should a retroactive wingman transfer be required and the unposted wingman is not available.

Q. If my wingman crashes, can someone else take his/her place?
A. Yes. Your wingman may optionally restart. If he/she aborts, then another pilot may substitute. Note that the second (or subsequent) wingman starts from your departure airport and remains subject to the time limit beginning with your claiming the baton.

Q. What if I transfer the baton to my wingman, can another pilot declare "wing" and fly as the new baton-holder's wingman?
A. No. The baton transfer eliminates that "slot". No additional pilot may join the leg. The replacement provision of Rule 9(b) applies only to pilots who are wingmen when they abort.

Q. If I crash or have a problem and wish to transfer the baton to my wingman, must I do so immediately?
A. No. You may wait if you wish. Normally you would quickly transfer the baton so as not to lose time. But in special circumstances, say when the wingman is not eligible to receive the baton at the moment, you might delay in making that transfer.

Q. If the lead transfers the baton to the wingman who then crashes, does the 30 minute penalty apply?
A. No. The penalty applies only when the leg is completed. The flight becomes "incomplete" and the baton returns to the current departure airport.

Q. If a pilot completes a leg, releases the baton, and only several minutes later discovers that the Duenna is invalid, what happens? Is the wingman rule in effect?
A. The decision is in the hands of the current baton holder. If the prior leg had no wingman, then the current pilot may either restart the leg from the previous flight's departure airport or simply release the baton at that airport. The choice is up to the baton carrier. (In this case, there is no penalty and the leg timing begins anew.)

If the prior flight, now invalid, had a wingman then the current baton holder may retrospectively invoke the wingman transfer rule. This special case works only when the wingman has landed and authenticated at the previous leg's arrival airport. The penalty is 30 minutes.

Q. Again, a pilot lands and releases the baton. But this time several hours pass before the team discovers that the Duenna is invalid. What now?
This will be a matter for Racing Committee review. The standard expectation is that team will stop at its next landing and repeat the invalid flight under similar environmental conditions. Add in a small penalty.

Alternatively, if the invalid leg's wingman landed and authenticated properly, the team may retrospectively invoke the wingman transfer rule and the leg will be complete without having to re-fly the distance. The team will then accept a wingman transfer penalty of 30 minutes as above.

Q. What if the wingman receives the baton in transfer but takes more than two hours to complete the leg. Is there any penalty?
A. The wingman incurs the normal triple time penalty plus any wingman transfer penalty. For example, a wingman takes the baton and is four minutes late. The penalty will be forty-two minutes (4*3+30).

Q. Another tiny detail. Under the retrospective invocation of the wingman rule, what if the wingman was later than the two hour limit? How does the triple time penalty apply here?
A. If the wingman arrives after the two hour limit, then the usual three-for-one penalty applies in addition to any wingman transfer penalties. If the now invalid leg's lead pilot had caused the team to incur a penalty, and the wingman's arrival is later yet, then the difference in the penalties will be incorporated into the Bonus Bank account. If the wingman landed at the same time or before the prior lead, then there is no additional penalty.

10. Team Organization.

a. Team membership.

Q. You say that the Teams may make their own rules about membership. Does that mean that a small group of pilots can take over a team and exclude everyone else? I thought that the race was open to all participants.
A. We have confidence that the teams will exercise good judgment here—while they incorporate the openness built into the race structure. Yet, everyone understands that the teams are responsible for the actions of their members and may want to develop some mechanisms to enforce good behavior. If any such decision affects the race scoring or the overall race community, then the team should immediately communicate the circumstances and decisions to the Executive Committee.

b. Team communications.

Q. You say that it's ok to close off a "private" team communication channel. But what about normal operations? Should those be open or closed?
A. Teams using a multiplayer server or TeamSpeak should make every effort to accommodate guests from other teams or just members of the flightsim community. Naturally, there may be technical problems and bandwidth challenges. Teams may keep sub-channels in TeamSpeak as password protected, for example, so that they may discuss matters of a strategic nature without everyone hearing. Cross-team visits are encouraged in order to enhance collegiality in the racing community. Guests at a team's multiplayer site should behave as invited guests: good etiquette is highly valued.

e. New Teams.

Q. Why have a deadline for new teams?
A. The significant challenge associated with forming a new team may require a bit of help so that the event will be fun for everyone involved. Accordingly, the early start will afford the team enough time to get everything set up properly and allow the pilots to become familiar with the new event. All this can be done – with sufficient time and assistance. It will also permit the Executive Committee time to review preparations and assist with corrections prior to the most intensive period of pre-race preparations

A new team will have to organize something like 10-12 pilots who can run an around-the-clock race. It will need a public forum. And it will have to insure that all its members understand and can apply the complicated set of rules. And it will want to encourage its pilots to become proficient with the various types of aircraft involved here. Note that individual pilots who enter the race with an existing team of veteran pilots will learn much from their teammates. A new team that includes some veterans from previous races will have a great advantage in overcoming the hurdles – and will be warmly encouraged to participate by the Executive Committee.

11. Intentional Foul Play.

Q. What will be done to correct the injustice of foul play?

A. In the unhappy event, the race officials will try to devise a mechanism to resurrect the wronged team's position so that it can continue to race on an equal footing.

Q. Does the intentional foul play rule allow teams to control their membership?
A. No and yes. The underlying principle of the race is to encourage the active participation of the broader flight simulation community. While some pilots will be better than others, teams are explicitly encouraged to introduce new members to the joy of RTWR participation and are discouraged from barring participation. However, it is possible for a single pilot to cause irreparable damage to the team. If a team feels that a pilot is being intentionally harmful, then the team should consult with the Executive Committee. Attempts will be made to resolve the situation. See Rule 10.

12. Rules Enforcement and Appeals.

Q. What is going on here? Who are the Racing Committee? The Race Master? The Duty Officer?
A. Please take a look at the Race Administration document for many more details.

Q. I understand that the Duty Officer makes rulings on the spot. What if there is a mistaken ruling, can I appeal?
A. Yes, you may and should appeal to the Race Master. Please ask for an appeal. (The Duty Officer will often have to make quick judgments. He will probably be happy to have time for a deeper consideration. Often, the Duty Officer will independently ask for a Board to consider the case more thoroughly.) The Race Master will appoint an Appeals Board (made up of fellow racers on the Racing Committee). You will want to submit a written explanation of your appeal so that the full force of your argument will be appreciated by the Appeals Board.

Q. What if the Appeals Board and the entire Racing Committee get it wrong? To whom may I appeal?
A. Normally, we aim for the Racing Committee's decisions (and the Appeals Board's decisions) to be fair, fast, and final. The members are fellow pilots representing all of the teams. Their judgment will carry the heaviest weight. However, you may appeal their decision to the Executive Committee. Normally, those appeals will be entertained only when the fundamental rules or the integrity of the race is in question. That is, if you feel that a ruling was too generous or that the extenuating circumstances merited better treatment, then the judgment of the Racing Committee will likely stand. However, if you feel that a rule has been badly misinterpreted or that an incident threatens the whole race itself, then you should ask for a review. Please submit a full written argument so that you take advantage of the opportunity to convince the Executive Committee.

Other Questions.

Q. I want to fly for my forum. But the baton never seems to be available—other pilots always seem to claim the baton immediately on its being relinquished. What is going on? What should I do?
A. Your teammates are probably coordinating their baton handoffs to minimize the time spent on the ground. This is an important race technique. If you want to fly, either get online with your team or, if that is difficult, contact your team through the forum and ask to join the team's efforts. Teams are always looking for new pilots and you will be very welcome. This question points out the value of spending time with your team members in the weeks leading up to the race when many of these procedures are discussed and organized. You will get a chance to meet some terrific people and to

play an important part in your team's success. In past years, all new pilots who have joined during the Race have had a chance to fly for their team. As one of the Race pilots has said, he's never had so much fun with his pants on.

Q. I want to win at all costs. I don't care about the spirit of the race. And the Rules are just something to be fiddled so that my team will win. What should I do?
A. Wall Street is looking for people like you. And the pay is better.