LOADING

If you have the tape version, place the tape in your recorder, press play, and type CLOAD <enter>. When the program has finished loading, type RUN <enter> to begin the game. There are two copies on the tape, one after the other. If you have the disk, place it in the drive, close the door, and type RUN"JET" <enter>. The game will start automatically.
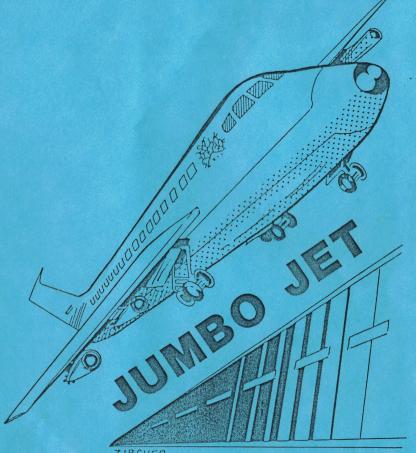
WARRANTY

This program, like all Prickly-Pear Software programs, is guaranteed to load for as long as you own it. If it ever fails to do so for any reason (even if the dog chewed it), simply return it to us for a prompt replacement. There is no other warranty, expressed or implied.

OVERVIEW

You will control the mighty 747C Jumbo Jet in a simulation of a simulation. This is a model of the actual simulation of the Boeing 747 Jumbo Jet. Many of the gauges and dials and such have been removed, and the map and other features added to make game play more enjoyable.

The main goal in this simulation is to fly the plane from airport 'A' (in the upper-left hand corner of the map) to airport 'B' (in the lower-right hand corner of the map). To complete this simulation sucessfully, you must not only make a satisfactory take-off and landing, but turn the plane 180 degrees, land on a diagonal airstrip, and do all of this without running out of fuel, without crashing and without subjecting the plane to excessive amounts of stress damage.

FOR TRS-80 COLOR COMPUTERS WITH EXTENDED BASIC & 32K RAM

ZIRCHER

JUMBO JET
A FLIGHT SIMULATOR

TAKE OFF FROM ONE AIRPORT, FLY TO ANOTHER, AND LAND SAFELY, USING FULL INSTRUMENTS AND A THRU THE COCKPIT WINDOW VIEW.

REQUIRES TWO JOYSTICKS

CONTROLS

The right joystick controls the climb/dive and left/right banking of the 747C.

The left joystick controls the four throttles on your plane.

The right joystick button or the 'B' key turns the brakes on/off.

The 'U' key raises/drops the undercarriage.

The 'M' key turns a full-screen map on, and pauses the game.

The 'A' key will abort the game.

LEVEL OF PLAY

When you first RUN the program, you will be asked at which skill level you wish to play. If you select skill level 1, you will begin the game with a full tank of fuel. On skill level 2, you will have just less than a full tank of fuel, and on level 3, you will have less than half a tank! Obviously, level 3 is only for experts!

STRESS

There are many ways to subject the plane to stress, which will result in structual damage, loss of points, or in the extreme case, the destruction of the plane. Banking too hard, climbing at too steep of a rate, going into too sharp of a dive, exceeding 999 feet in altitude, or exceeding 850 M.P.H. will put you in stress. If you remain in stress for too long of a period, you will lost points, and if you are in stress for excessive amounts of time, the plane will weaken and be torn apart. The computer will notify you that you are in stress by filling the hollow box beneath the 'S' on the right side of the screen. Normally, this box will remain hollow.

BRAKES

The 'B' key (or the right joystick's fire button) will 'toggle' the brakes on and off. If the brakes are on and you press the 'B' key, they will turn off, and vica-versa. While on the ground, brakes slow the plane down at a rate of about 4 M.P.H. per second. You will begin the simulation with the brakes on. If your brakes are on, you can tell in much the same way that you find out whether or not you are in stress. If the box beneath the 'B' (just left of the small map) is filled-in, your brakes are on. If it is hollow, your brakes are off.

LANDING GEAR

The 'U' key will toggle the undercarriage, or landing gear, up or down. It is safe to land the plane with the undercarriage down, but having it down while in flight will cut your airspeed drastically. You MUST have your undercarriage down while on the ground. Failure to do so will result in death (yours). The 'U'

underneath the brake on/off indicator is the undercarriage up/down indicator. If the box is solid, the undercarriage is down, and it is safe to be on the ground. If not, the undercarriage is up, and you are in a better position to fly.

AIRSPEED

Your airspeed indicator is surrounded by a box, and is just above the small map. It is abbreviated 'ARSP'. The number following it indicates your airspeed in miles per hour. If this exceeds 850 M.P.H., you will go into stress. You must be traveling at more than 100 M.P.H. to take-off, and you can't land at more than 450 M.P.H.

ALTITUDE

Your altitude indicator is just left of the airspeed indicator. It too is surrounded by a box, and is labeled 'ALT'. The three digit number which follows indicates your altitude in feet. If this exceeds 999 feet, you will go into stress. You can not land unless you are at zero feet. You may not see the landing strip at any height exceeding 100 feet.

MINI-MAP

Your mini-map is a large, white square between your brakes indicator and your stress indicator. You will begin as a dot in the upper-left corner of the map. As you fly along, your course will be plotted. This is a crude representation of the actual map screen.

LARGE MAP

By pressing the 'M' key at any time while playing the game, you will turn the map screen on. This will display a large grid on the screen. Airport 'A' will be displayed in the upper-left, and Airport 'B' will be displayed in the lower-right. As you fly along, your course will be plotted with dots. The flashing dot on the screen is your current position. This screen can also be used as a pause if your phone rings and you don't want to lose your current game. By pressing any key, you will be put back into the game.

VIEWSCREEN

Filling most of the top of the screen is a large viewscreen, or 'window', of what you would be seeing out of the pilot's window. When you climb, the terrain lowers. When you bank, the ground tilts. When you are near a runway, you can see it out of the viewscreen.

ARTIFICIAL HORIZON

On the left side of the screen in about the middle is your artificial horizon line. This shows the ground in relation to

your plane. It shows the position of the horizon, and tilts the
opposite way from the tilt of the plane. In other words, if you
bank your plane so the right wing is higher than the left wing,
the artificial horizon will have the left side higher than the
right side. Do not confuse this with a bank indicator.

HEADING

In the lower-left corner of the screen is a box marked 'HDG'.
This is your heading, or the direction your aircraft is
traveling.   A line extends from the middle almost to the edge.
This line points to the direction your 747C is facing and
flying.   An 'N' on the top of the box represents north, and this
will help you to orient yourself.

THROTTLES

In the middle of the screen are four vertical, empty bars. These
represent the four throttles (four engines) of the 747C. By
moving the left joystick up and down, you can control the
increase/decrease of fuel to the engines which will, in turn,
speed up or slow down the aircraft. As you increase the
throttles, your airspeed will increase. These four bars will
begin to fill up with white. This will indicate to you how much
fuel is being directed to the engines. If you decrease your
throttles, the plane will slow down. Keep in mind that going too
fast brings you into stress, and slowing down may cause a loss of
altitude.

FUEL GAUGE

Just to the right of your heading indicator lies a small, upright
box with an 'F' above it.   This is your fuel indicator. The
little colored strip in the middle represents your fuel level.
As you use your engines (move your throttles), this fuel level
will drop. If it drops to the point of nonexistence, you will be
out of fuel.   First, your throttles will drop slowly to zero.
You will then lost altitude and speed, and crash.   On the easy
and intermediate skill levels, you should have more than enough
fuel to complete the simulation. On the hard level however,
don't count on it!

WING TILT INDICATOR

Situated below the artificial horizon is your wing tilt
indicator.   This is a little horizontal strip of white with a
line down the middle. This line represents the point at which
you are flying level. As you bank, this indicator will show you
which wing is the higher of the two, and to what degree. It will
do this by placing a small line to the left of the middle if you
are banking right, or by placing a small line to the right of the
middle if your are banking left. The farther away from the
center the line is, the greater the degree of your bank.

CLIMB-DIVE INDICATOR

To the left of the artificial horizon is the rate of climb/descent indicator. This is a small, upright white box with a line through the middle of it. As you pull forward or back on the stick, a small marker will move up and down in the box in much the same way as the little line in the bank indicator does. This line will show you the level of the tail of your plane. This will help you to know when you are climbing or diving, and to what degree.

STOPPING THE GAME

If at any time during the game play you wish to quit, simply press the 'A' (abort) key and the game will end immediately.

TAKEOFF

Take-off is a simple procedure. It involves gaining speed and lifting off of runway 'A'. The first thing you need to do is use your throttle (left joystick) and get your engines going. Raise your throttles until they are about three-quarters of the way up. Next, release your brakes. You should begin to increase in airspeed. When your airspeed exceeds 125 M.P.H., pull back on the control stick (right joystick) until you are just below stress levels. As soon as you begin to leave the ground, pull your undercarriage up. This will lower wind resistance, and increase your speed. Remember, you begin the simulation facing north, and airstrip 'B' is to the southeast. You are going to have to turn the 747C around! Watch that your airspeed doesn't exceed 850 M.P.H., and watch your altitude too!

LANDING

Unlike takeoff, landing is a complicated process. You must first be perfectly lined up with runway 'B'. Ease your plane down SLOWLY!!! If you come down hard, that's the end of you! Slow your airspeed to less than 450 M.P.H., and come in easily. Everyone will have their own methods of takeoff and landing, as well as piloting the plane. You must experiment with it to find the method which best suits you.

LOSING

There are many ways to die in this simulation. In fact, the only 'good' outcome is if you land the plane on airstrip 'B' with a minimum of stress damage. Staying in stress too long will cause the plane to rip apart. Coming down too hard while landing is bad. Running off the map will make you lose contact with the control tower, and will end the game. Landing without your undercarriage down will destroy the plane. Even if you manage to sucessfully land the plane, if you have stress-damage, you won't be awarded any points! Oh, and what death would be complete without a sorrowful telegram to the loved ones at home?