1. In Compass, Not in GCF 0.5

- Setting RC delays
- A simple linear wire model for capacitance
- Explicit grouping of clocks to indicate which sets of paths between different clocks should be analyzed
- Can remove previously defined constraints
- Temperature, process, and voltage specifications
- Aliases, wildcards, and functions allowed in identifying circuit elements
- Can use path clusters to group combinational delay constraints
- Can control tracing through bidirectional pads
- Can explicitly specify that a block should be treated as a black box
- Can specify CLK to Q and RST to Q arcs through a sequential element should be treated as combinational as well as sequential

2. In GCF 0.5, Not in Compass

- Waveforms which are independent of a particular pin
- Derived waveforms
- External cell driver type specification
- External input slew specification
- External parallel drivers specification
- Fanout-based external loading specifications (instead of capacitance-based)
- Borrow limit constraint for cycle stealing
- Transition time constraint
- Clock tree constraints
- Capacitance constraints on internal nets

3. Will be in GCF 0.6

- Temperature, process, and voltage specifications, as well as constraints
- Area constraints
- Aspect ratio constraint
- Power constraints

- Mode-dependent constraints
- Stable pin definitions (including what the value is, for constant propagation)

4. In Both, but Different

Table 1: Compass vs GCF

	Compass	GCF
1	Constraint names are required	Labels are optional
2	Units are fixed	Units have defaults but can be changed
3	Clock insertion delay and skew specifications are associated with clock definition	Edge skews can be specified with waveform definition; insertion delay and skew constraints can be specified for clock trees
4	Breaking or disabling paths can only be done for a timing arc or from/to path endpoints	Can disable paths through a pin, an arc, a series of pins, or from/to path endpoints
5	Thru command allows multi-cycle specs for paths going through two pins (the pins don't have to be path endpoints)	Multi-cycle spec can apply to paths which go through a pin, an arc, a series of pins, or between from/to path endpoints
6	Assumes that unconstrained external input pins are stable	Assumes that all input pins may change