;; Cargo distribution to customers

;; C(i) and C(i+5) items are identical

;; Send one of identical items to its destinations

(define (problem task3-problem)

(:domain air-cargo)

(:objects C1 C2 C3 C4 C5 C6 C7 C8 C9 C0

P1 P2 P3 P4

SFO JFK IST TLS)

(:init

;; types

(Cargo C1) (Cargo C2) (Cargo C3) (Cargo C4) (Cargo C5)

(Cargo C6) (Cargo C7) (Cargo C8) (Cargo C9) (Cargo C0)

(Plane P1) (Plane P2) (Plane P3) (Plane P4)

(Airport SFO) (Airport JFK) (Airport IST) (Airport TLS)

;; locations

(At C1 SFO) (At C2 SFO) (At C3 IST) (At C4 IST) (At C5 IST)

(At C6 TLS) (At C7 TLS) (At C8 TLS) (At C9 JFK) (At C0 JFK)

(At P1 SFO) (At P2 JFK) (At P3 IST) (At P4 TLS))

;; send one of cargos C(i) or C(i+5) to destination

(:goal

(and

(or (At C1 IST) (At C6 IST))

(or (At C2 JFK) (At C7 JFK))

(or (At C3 SFO) (At C8 SFO))

(or (At C4 TLS) (At C9 TLS))

(or (At C5 SFO) (At C0 SFO))

)))