micro crane assembly **100** in a substantially steady state relative to inertial space or moving to compensate for some of the movement of target platform **20** (**FIG. 1**). Steady state relative to inertial space, as used herein, is defined to mean the state of a mass in which there are no acceleration forces on it except gravity, i.e. it is still.

[**0019**] The control algorithm also helps maintain lifted cargo **25** (**FIG. 1**) in a symbiotic relationship with the target platform to which cargo **25** is to be delivered, compensating for the relative movements of cargo **25** and target platform **20**. Accordingly, the control algorithm may be used by controller **300** to move latch frame **104** (**FIG. 3**) such that its motion relative to the target platform (and additionally cargo **25**) is minimized, to move latch frame **104** and cargo **25** once lifted so that its motion relative to target platform **20** and nearby cargo **25** is minimized until lifted clear, or the like, or a combination thereof.

[**0020**] A kinematic control algorithm, which may be separate from or integrated into the control algorithm, may also be used to help maintain support point **101** of micro crane assembly **100** (**FIG. 1**) in a substantially steady state in inertial space despite motion of base platform **210** or ship **22** (**FIG. 1**).

[**0021**] Referring now to **FIG. 5**, in a further exemplary method, objects, e.g. cargo **25** (**FIG. 1**), may be offloaded from two ships at sea. First ship **20** (**FIG. 1**) is positioned proximate to second ship **22** (**FIG. 1**), e.g. at sea. Composite crane **1** (**FIG. 1**), which is connected to base platform **210** (**FIG. 2**) on first ship **20**, is positioned into a predetermined position relative to cargo **25** which is to be moved with respect to second ship **22**, e.g. to or from second ship **22**. First ship **20** and second ship **22** may be secured to or free of each other and may be at rest or moving, e.g. in a substantially parallel course. Additionally, first ship **20** and second ship **22** may be at rest but still moving with respect to each other due to wave motion.

[**0022**] Micro crane assembly **100** (**FIG. 1**) is connected to lifting device **120** (**FIG. 2**). Using a control algorithm accessible to controller **300**, controller **300** maintains support platform **102** (**FIG. 3**) for micro crane assembly **100** in a substantially steady state relative to inertial space. As before, the control algorithm may further comprise an algorithm adapted help to move latch frame **104** (**FIG. 3**) so that its motion relative to the target platform (and cargo **25**) is minimized, to move latch frame **104** and cargo **25** once lifted so that its motion relative to the target platform and nearby cargo **25** is minimized until lifted clear, or a combination thereof. The control algorithm may be used to control movement of latch frame **104** so that its motion relative to the target platform (and cargo) is minimized. Further, the macro crane compensation movement can be disabled (i.e. not moving) and composite crane **1** used to lower cargo **25** onto the deck of ship **22** under full six-degree-of-freedom control allowing the possibility of moving cargo on ship **22** while at sea with relatively little relative motion between cargo **25** and the deck. This can operate to increase control and safety of these operations.

[**0023**] Additionally, the control algorithm may be used to move macro crane assembly **200** to ensure that latch frame **104** remains substantially centered in the workspace of micro crane assembly **100**.

[**0024**] The foregoing disclosure and description of the inventions are illustrative and explanatory. Various changes in the size, shape, and materials, as well as in the details of the illustrative construction and/or a illustrative method may be made without departing from the spirit of the invention.

We claim:

**1**. A composite crane, comprising:

a. a micro crane assembly, adapted to lift and lower cargo;

b. a macro crane assembly, adapted to be in communication with and control the motion of the micro crane assembly; and

c. a controller, further comprising a control algorithm and operatively in communication with at least one of (i) the micro crane assembly or (ii) the macro crane assembly, the controller adapted to maintain a predetermined portion of the composite crane in a substantially steady state relative to inertial space.

**2**. The composite crane of claim 1, wherein the macro crane assembly:

a. further comprises a micro crane supported point; and

b. is adapted to control motion of the micro crane assembly about the micro crane supported point.

**3**. The composite crane of claim 1, wherein the micro crane assembly further comprises:

a. a controllable latch frame adapted to be connected to a load; and

b. a plurality of cables arranged and adapted to be controlled such that movement of the controllable latch frame and its load are controllable in a predetermined number of degrees of freedom.

**4**. The composite crane of claim 3, wherein:

a. the controllable latch frame is an integral latch frame adapted to support cargo to be moved to or from a target platform; and

b. the micro crane assembly further comprises a support frame in communication with the controllable latch frame.

**5**. The composite crane of claim 3, wherein the predetermined number of degrees of freedom is six degrees of freedom.

**6**. The composite crane of claim 1, wherein the macro crane assembly is further adapted:

a. to be connected to a base platform; and

b. to be motion compensated with respect to the base platform.

**7**. The composite crane of claim 6, wherein the macro motion compensation:

a. occurs in at least one of six degrees of freedom; and

b. allows at least one of (i) positioning the micro crane assembly in at least one of six degrees of freedom or (ii) orienting the micro crane assembly in at least one of six degrees of freedom.

**8**. The composite crane of claim 1, wherein the macro crane assembly is adapted to accommodate a structural configuration of the base platform.

**9**. The composite crane of claim 1, further comprising at least one of (i) a distributed sensor operatively in communication with the controller or (ii) a distributed controller operatively in communication with the controller.