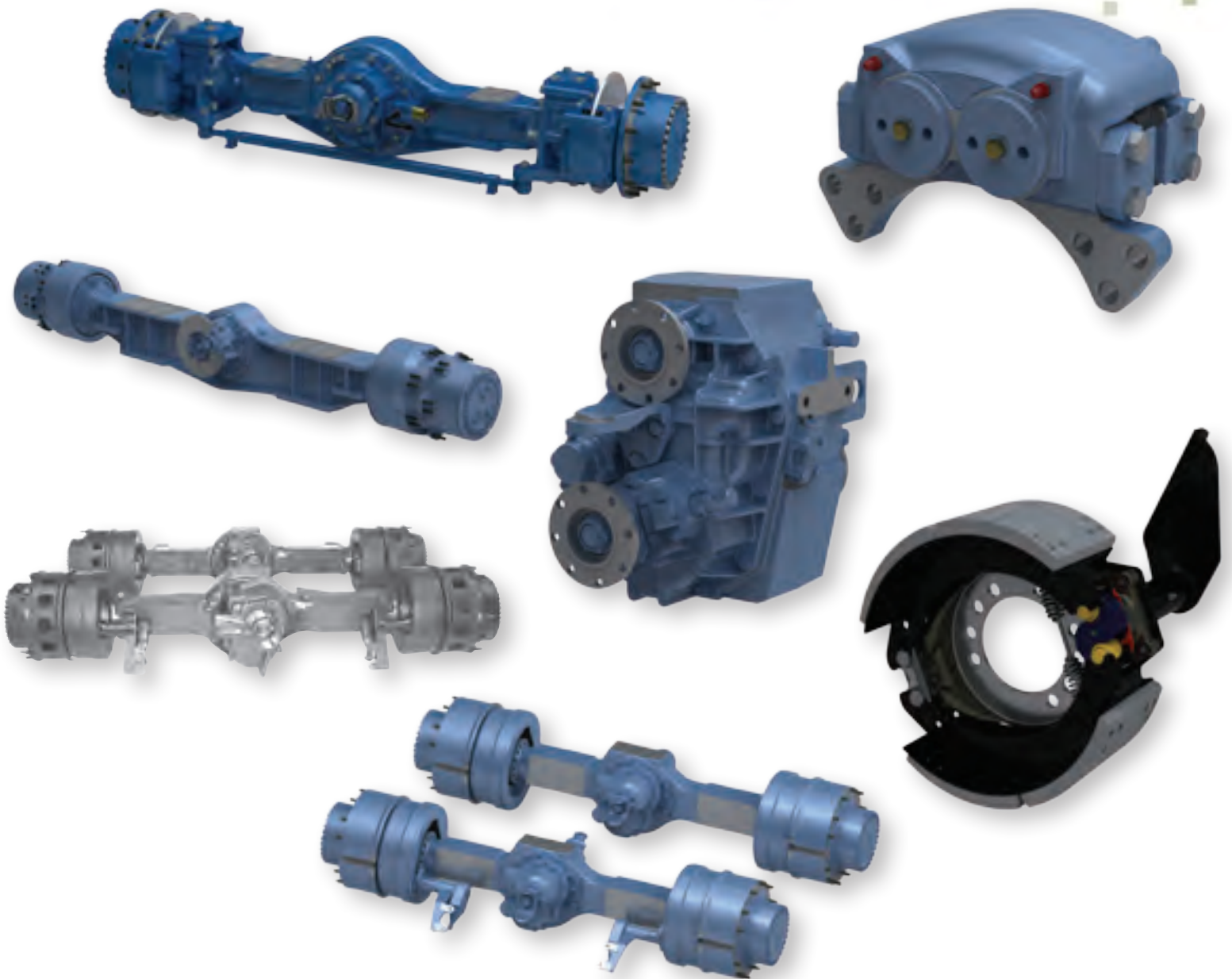


AXLETECH COMMERCIAL CAPABILITIES



AGRICULTURE | AIRCRAFT GROUND SUPPORT | CONSTRUCTION | FORESTRY
MATERIAL HANDLING | MINING | SPECIALTY TRUCK | TRANSIT

INNOVATIVE DRIVETRAIN SYSTEMS

AxleTech International is a designer and manufacturer of drivetrain systems and components, as well as aftermarket parts, serving commercial and military vehicle markets worldwide. We are a leading supplier of heavy-duty off-highway and high-mobility planetary axles, independent suspensions, brakes, and transfer cases. We offer axles with GAW ratings from 5,000 – 250,000 pounds (2 – 113 metric tons) in single, tandem, tridem, rigid and steer designs for use in a diverse array of applications.

Committed to providing our customers with the highest quality products, AxleTech's engineers use leading design tools and practices to ensure product quality, durability and reliability. With a history going back over 100 years, AxleTech and its people have the experience and knowledge to design, develop, and build drivetrain products that meet your specific requirements. Whatever the application, we can provide innovative solutions that will help you differentiate yourself from the competition.

AxleTech is a business unit of General Dynamics with origins as the North American Off-Highway and European Specialty Division of Rockwell International. AxleTech is headquartered in Troy, Michigan, U.S.A.



PLANETARY AXLES

AxleTech's planetary axles deliver the uncompromising durability you need for a full range of commercial vehicle applications. They are available with a wide variety of gear reduction options to handle the most demanding traction conditions. These axles deliver a full range of load capacities with a wide variety of brake choices and tracks.

AxleTech's planetary hub-reduction designs come in a variety of offerings from steer to rigid designs in single, tandem and tridem sets. A variety of hub sizes and mounting configurations allow great flexibility in vehicle design. Axles feature optional traction and torque management devices and permanently lubricated steering axle shafts and ball stud tie rod assemblies for low maintenance and dependability.

SUSPENSION SYSTEMS AND MODULES

AxleTech provides state-of-the-art independent suspension axle systems (ISAS®) for applications requiring high-mobility and maneuverability. The double-wishbone design improves steering and maximizes tire-to-ground contact, providing unrivaled ride control and handling in rough terrain. Improved suspension flexibility and greater wheel travel mean improved ride quality for the driver, crew, and payload, as well as increased safety and driver efficiency at higher off-road speeds.

AxleTech has proven applications in axle capacity ranges from 6,000 to 31,000 pounds (2,700 to 14,000 kilograms). Whether your application involves hauling on improved roads or off-highway, AxleTech's ISAS can get you and your payload where it needs to be.

BRAKES

AxleTech International has a long history and experience in the design and manufacture of brake assemblies that are specific to their unique applications. Our brakes are designed to achieve ultimate performance under specific demands such as load capacity, torque, heat and terrain.

Oil cooled Wet Disc Brakes are ideal for high torque and heavy load capacities in extreme environments. Wet Brakes have integral and unit mounted options with a variety of disc sizes.

Heavy Duty Drum Brakes for on-highway and off-highway applications are available in S-cam and Wedge designs. Hydraulic Dry Disc Brakes are common on specialty vehicles. AxleTech's unique design achieves maximum performance with ratings up to 2,500 psi. Product designs are available with a variety of rotor diameters.

TRANSFER CASES

AxleTech transfer cases are built to handle the demands of high-torque engine/transmission combinations, delivering dependable service in a variety of high-mobility vocations. Our portfolio of transfer cases give unrivaled gear ratio versatility, and your choice of front or rear outputs, optional integral air-engaged PTOs, and interaxle differential. They feature helical direct drive gearing, main shaft tapered bearings, magnetic drain plugs, and a wide range of yokes and flanges. Factory installed oil pumps are provided as standard equipment to assure low-speed lubrication, adding to the low maintenance temperament of these rugged, yet lightweight transfer cases.

COMMERCIAL AFTERMARKET

Built on the legacy of Rockwell International, AxleTech International is focused on servicing the demands of the commercial on-highway and specialty vehicle markets.

The commercial aftermarket is changing... for the better. In the past, you were limited to a single supplier for Genuine OE replacement products, now you have a choice. AxleTech products are genuine replacement parts for Rockwell and many other drivetrain and undercarriage assemblies and components.

We offer an excellent selection of axle, driveline, brake, and wheelend products. They're manufactured to original Rockwell International OEM specifications, with consistent high quality.

What does that mean to you? It means that we have Genuine OE assemblies and components for AxleTech and Rockwell axles. And we have resources that make sure the axle is designed to meet the performance demands of each specific market.

THE AXLETECH ADVANTAGE

With AxleTech you not only get an extensive selection of original equipment quality aftermarket products, you also receive reliable and experienced technical support to help answer any questions you might have. Parts availability is also a strategic advantage; we locally stock a wide variety of components, complete assemblies, and new carriers to support your service expectations.

PRODUCTS

CARRIERS

AxleTech carrier assemblies and components perform in the harshest on-highway and off-highway conditions.

- Complete new carriers (e.g. RS-120, RS-145, RS-160, RS-180, RS-220, RS-230 and SQHP)
- Heavy-duty differential rebuild kits

Our full complement of carrier components include:

- Bearings
- Cap and carrier
- Differential case halves
- Differential spiders, pinions
- Fasteners, shims, spacers
- Ring and pinions
- Seals
- Side gears
- Thrust washers

DRIVELINES

AxleTech driveline products are designed and manufactured to original-equipments standards:

- Bearing tubes
- Center bearings
- Companion flanges
- End yokes
- Slip yokes
- Spline plugs
- Stub shafts
- Universal joints
- Weld yokes
- Central lube systems

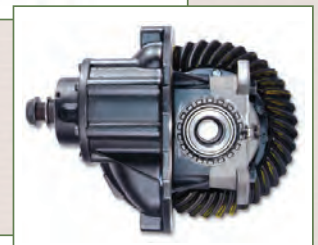
BRAKES

AxleTech Specializes in bus and coach, specialty and off-highway brake applications:

- Wedge brakes
- Cam brakes
- Combination brakes (service & parking)
- Hydraulic dry disc brakes
- Hydraulic wet disc brakes
- Park brakes

Our selection features these components:

- Brake chambers
- Brake drums
- Brake repair kits
- Camshafts
- Disc pads
- Dust shields
- Hardware kits
- Pistons
- Slack adjusters
- Spiders



Customer Service: 877-547-3907
Tech Support 800-540-2794

www.OffHighwayPlus.com



VOCATION HIGHLIGHTS

CONSTRUCTION

AxleTech International provides custom drivetrain systems that are specifically engineered to meet today's demanding requirements for a wide variety of construction vehicles. Construction jobs vary from full-power massive infrastructure projects to precise work in constricted urban centers. For rugged power and hard working dependability, AxleTech International is always on the job.

- All Terrain Crane
- Backhoe
- Compactor
- Dump Truck
- Excavator
- Heavy Hauler
- Loader
- Multi-Axle Vehicle
- Pneumatic Roller
- Rough Terrain Crane
- Truck Crane
- Vibratory Roller
- Yard Crane

PRODUCT OFFERING:

- Planetary Rigid and Steer Axles
- Planetary Rigid Tandem Axles
- Oscillating Axles
- Axle Traction Control Options
- Axle Upgrade Options
- Hydraulic Wet and Dry Disc Brakes
- Park Brakes
- Drum Brakes
- Transfer Cases



FORESTRY

AxleTech International provides custom drivetrain systems that are specifically engineered to meet today's demanding requirements for the logging industry. From feller bunchers to log handlers, haulers, loaders, skidders and stackers, the forestry business is all about getting the wood out. When fast and reliable equipment is a necessity for increased production, AxleTech International is a cut above the rest.

- Feller Buncher
- Log Handler
- Log Hauler
- Log Loader
- Log Skidder
- Log Stacker

PRODUCT OFFERING:

- Planetary Rigid and Steer Axles
- Planetary Rigid Tandem Axles
- Oscillating Axles
- Axle Traction Control Options
- Axle Upgrade Options
- Hydraulic Wet Disc Brakes
- Drum Brakes



MATERIAL HANDLING

AxleTech International provides custom drivetrain systems that are specifically engineered to meet today's demanding requirements for various material handling vehicles. From sea ports to RORO ships, containers and cargo must be moved efficiently in confined spaces. When operators need rugged, reliable equipment with outstanding performance and serviceability, they reach for AxleTech International.

- Empty Container Handler
- Solid Tire Lift Truck
- Lift Truck
- Rail Car Mover
- Reach Truck
- RoRo Truck
- RoRo AWD Terminal

PRODUCT OFFERING:

- Planetary Rigid and Steer Axles
- Planetary Rigid Tandem Axles
- Oscillating Axles
- Axle Traction Control Options
- Axle Upgrade Options
- XTL® Wheel End Modules
- Hydraulic Wet and Dry Disc Brakes
- Park Brakes
- Drum Brakes
- Transfer Cases



MINING

AxleTech International provides custom drivetrain systems that are specifically engineered to meet today's demanding requirements for articulated haul, heavy haul, mining loaders and special purpose vehicles. Mining requires heavy machinery to move large quantities of ore and overburden. To lower the cost-per-ton operators must keep material moving at high volumes. For optimal strength, capacity and durability, the rock-solid choice is AxleTech International.

- Articulated Haul
- Heavy Haul
- Mining Loader
- Special Purpose

PRODUCT OFFERING:

- Planetary Rigid and Steer Axles
- Planetary Rigid Tandem Axles
- Oscillating Axles
- Axle Traction Control Options
- Axle Upgrade Options
- Hydraulic Wet and Dry Disc Brakes
- Park Brakes



AGRICULTURE

AxleTech International provides custom drivetrain and suspension systems that are specifically engineered to meet today's demanding requirements for the agriculture equipment market. Large, cost-efficient, highly-mechanized agricultural operations account for an important share of worldwide farm output. As farmers strive for improved efficiency in their operations, they seek the latest innovations in equipment serving crop harvesting, crop care, sprayers, and utility equipment – and their growing choice is AxleTech International.

- Fertilizer Injector
- Fertilizer Spreader/Sprayer
- Harvester

PRODUCT OFFERING:

- Planetary Rigid Axles
- Planetary Rigid Tandem Axles
- Planetary Steer Axles
- Oscillating Axles
- Non-Drive Steer Axles
- Axle Traction Control Options
- Variable Rate Coil Spring Suspensions
- Hydraulic Wet and Dry Disc Brakes
- Carrier and Housing Module
- Drum Brakes
- Park Brakes



AIRCRAFT GROUND SUPPORT

AxleTech International provides custom drivetrain and suspension systems that are specifically engineered to meet today's demanding requirements for aircraft ground support vehicles and equipment. Ground support equipment perform various functions from servicing aircraft between flights (towing, baggage handling, refueling), to providing fire and rescue support during emergencies. Crews know speed, efficiency, and accuracy are important to minimize turnaround time – making AxleTech International their plain choice.

- Airport Crash/Fire/Rescue
- Airport Refueler
- Baggage Tractor
- Tow Tractor
- ARFF

PRODUCT OFFERING:

- T/A Series Axles
- Planetary Steer Axles
- Planetary Rigid Axles
- Planetary Rigid Tandem Axles
- Variable Rate Coil Spring Suspensions
- Independent Suspension Axle Systems
- Drum Brakes
- Park Brakes
- Dry Disc Brakes



SPECIALTY TRUCK

AxleTech International provides custom drivetrain and suspension systems that are specifically engineered to meet today's demanding requirements for the specialty truck market. This unique market encompasses a wide range of special application vehicles from highly maneuverable, rugged highway trucks, to powerful super carriers. These vehicles often include options such as rear wheel steering and all wheel drive. For rugged, versatile designs, the unique choice is AxleTech International.

- 4x4 Off-Highway
- 6x6 Off-Highway
- 8x8 Off-Highway
- Multi Axle Off-Highway
- Off-Highway Exploration
- Snow Blower
- Special Purpose
- Truck

PRODUCT OFFERING:

- Planetary Rigid Tandem Axles
- Planetary Rigid and Steer Axles
- Portal Axles
- Oscillating Axles
- Axle Traction Control Options
- Severe Duty 5G Axle
- Axle Upgrade Options
- Park Brakes
- Drum Brakes
- Hydraulic Wet and Dry Disc Brakes
- Transfer Cases



TRANSIT

AxleTech International provides custom drivetrain systems that are specifically engineered to meet today's demanding requirements for transit buses. Transit buses are generally used for short-distance public transportation and geared for operation on regular urban or suburban bus routes in a commuting role. For competitively priced, low entry drive and steer axles, the standing choice is AxleTech International.

- Transit Bus

PRODUCT OFFERING:

- Planetary Rigid Axles
- Front Steer Axle "Deep Drop"
- Single Reduction Drive Axle
- Drum Brakes



A SAMPLE OF INNOVATIVE SOLUTIONS

AXLETECH XTL[®] TECHNOLOGY

EXTENDED TIRE LIFE FOR HEAVY DUTY MATERIAL HANDLING TRUCKS

AxleTech's patented XTL[®] wheel end technology is proven to dramatically reduce tire operating costs by extending the life of the tire. The XTL[®] patented dual tire wheel end allows independent rotation of wheels during a turn, thereby minimizing tire scrub, which is the main cause of tire wear.

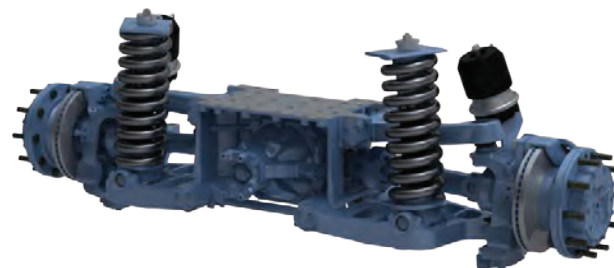


- Extends drive axle tire life up to 3 times
- Extends steer axle tire life up to 1.5 times
- Eliminates the need for tire rotation
- Improves vehicle maneuverability
- Reduced environmental impact
- Reduced damage to yard surface
- Provides tighter turning radius

INDEPENDENT SUSPENSION AXLE SYSTEMS (ISAS[®])

HIGH-MOBILITY & MANEUVERABILITY APPLICATIONS

The double-wishbone design of AxleTech's state-of-the-art independent suspension planetary axle systems (ISAS[®]) provides unrivaled ride control and handling with improved steering and maximum tire-to-ground contact, ISAS[®] delivers better control in rough terrain.



- Applications in axle capacity ranges: 6,000 To 31,000 lbs/axle
- Modular or integrated construction
- Best ride quality on tough terrain
- ABS and CTIS ready
- Improves safety & driver efficiency at higher off-road speeds

VARIABLE RATE COIL SPRING SUSPENSION (VRCSS)

EXAMPLE APPLICATIONS: AIRCRAFT RESCUE FIRE FIGHTING TRUCKS, HIGH SPEED AGRICULTURE SPRAYER/SPREADER

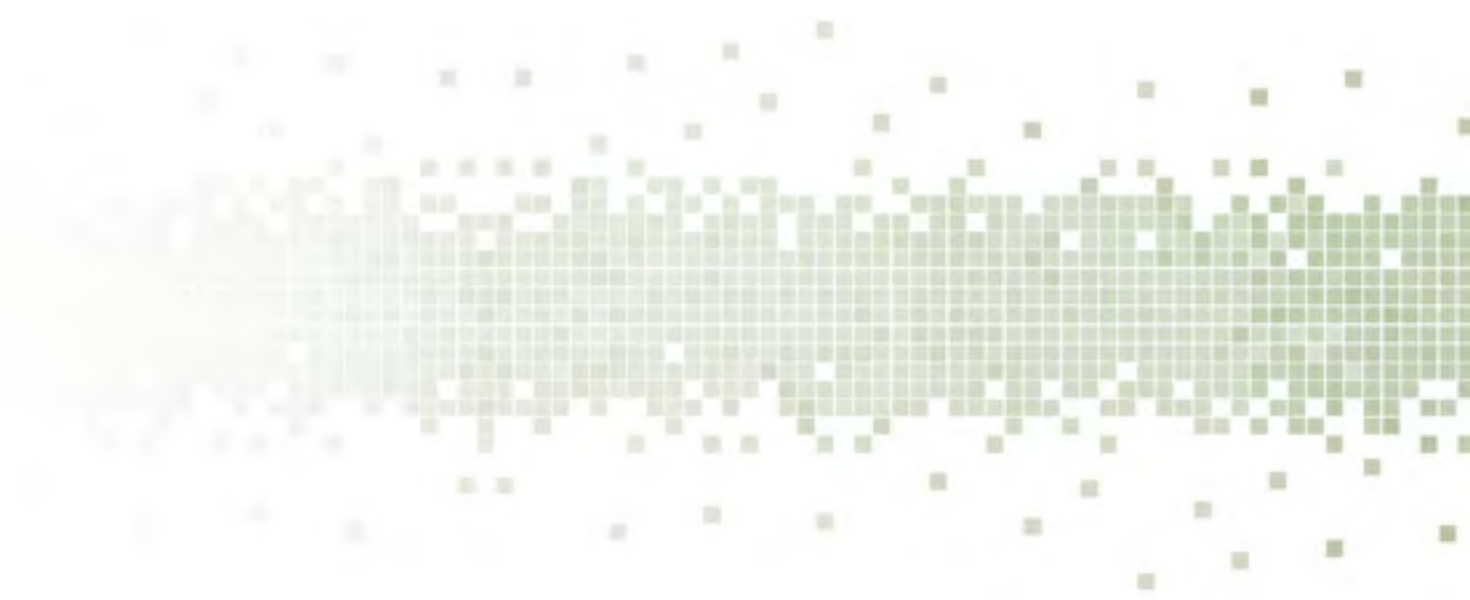
The AxleTech 5000 Series VRCSS Meets or Exceed all NFPA 414 and FAA Requirements. This suspension system can integrate various options, including spring/shock absorber and hydraulic strut configurations; driver controlled differential lock; and single or through drives with a large range of reduction ratios.



Configuration :	4x4, 6x6	Wheel end reduction:	4.00 – 4.63:1
Axle Capacity :	19,800 lbs to 28,700 lbs (9,000 Kg to 13,000 Kg)	Brake Type:	Air disc brakes
Total Wheel Travel :	7.5" (190 mm) pumping / 14.8" (375 mm) wheel to wheel	Wheel end Options:	CTI, ABS
		Tire capacity:	Up to 24R21



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Locations

Manufacturing Facilities

Oshkosh, Wisconsin, U.S.A.
 Troy, Michigan, U.S.A.
 St. Etienne, France
 Osasco, Brazil

Sales and Service Offices

Algiers, Algeria
 Ankara, Turkey
 Bangalore, India
 Beijing, China
 Johannesburg, South Africa
 Manila, Philippines
 Osasco, Brazil

Seoul, South Korea
 Singapore
 St. Etienne, France
 Sydney, Australia
 Taipei, Taiwan
 Troy, Michigan, U.S.A.
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