

KIC 007449136

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007449136-01	OBS	1890.01	4.336419	133.856686	107.9	4.250	43.8	49.6	1.60	6180	1.96	1055.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007449136-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007449136-01

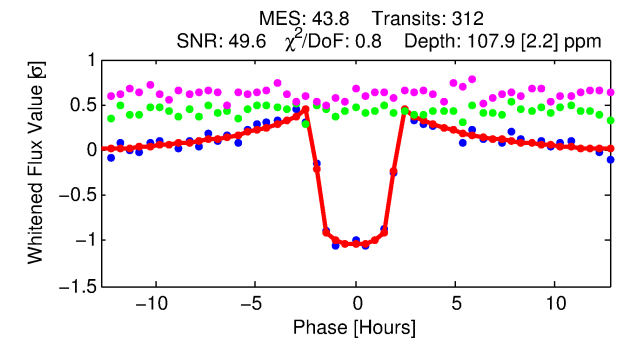
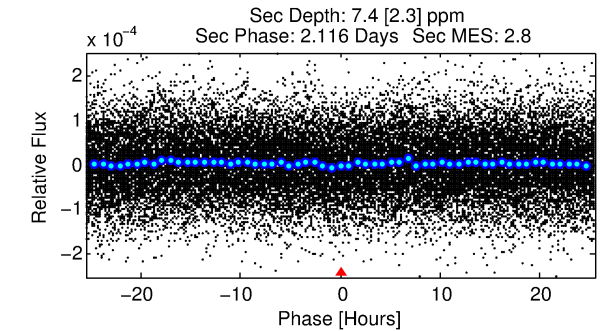
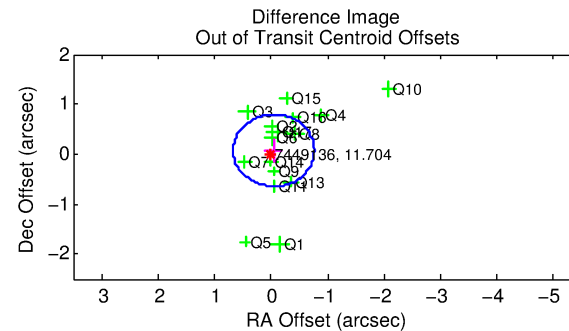
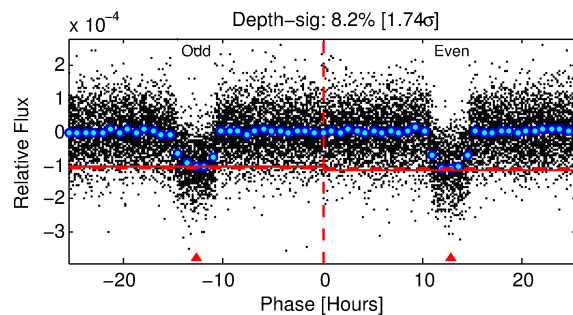
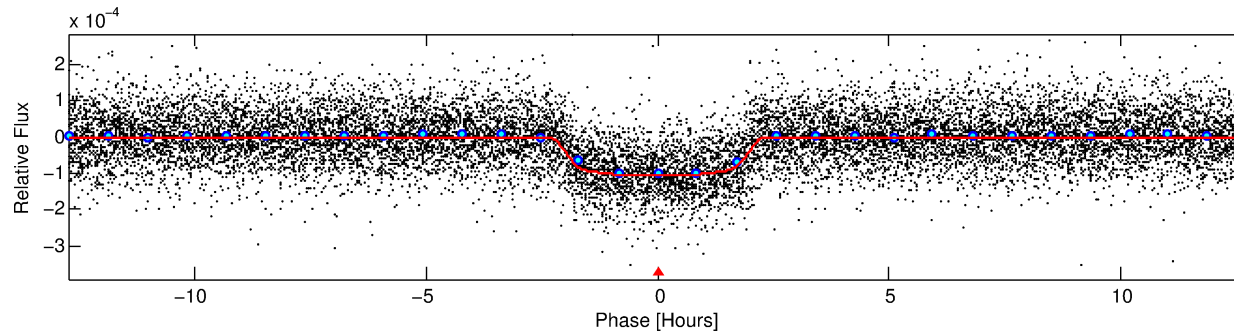
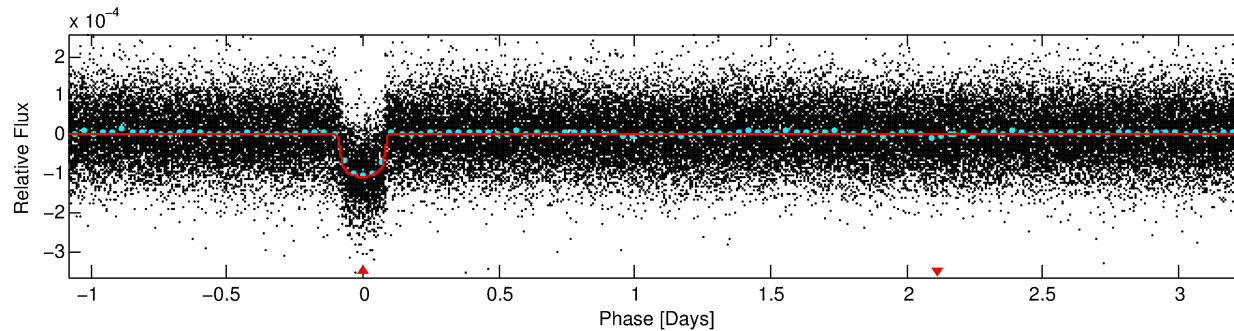
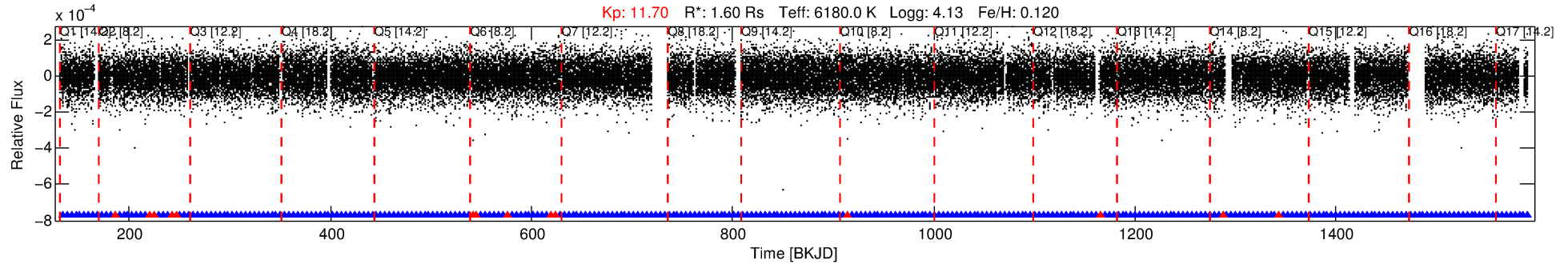
No Significant Match Found

DV One-Page Summary

KIC: 7449136 Candidate: 1 of 1 Period: 4.336 d

KOI: K01890.01 Corr: 0.983

Kp: 11.70 R*: 1.60 Rs Teff: 6180.0 K Logg: 4.13 Fe/H: 0.120



DV Fit Results:

Period = 4.33642 [0.00001] d
Epoch = 133.8567 [0.0009] BKJD
Rp/R* = 0.0112 [0.0008]
a/R* = 3.73 [1.21]
b = 0.90 [0.08]
Seff = 1055.10 [69.78]
Teq = 1453 [24] K
Rp = 1.96 [0.17] Re
a = 0.0564 [0.0020] AU
Ag = 3.36 [1.13] [2.08σ]
Teffp = 3042 [258] K [6.14σ]

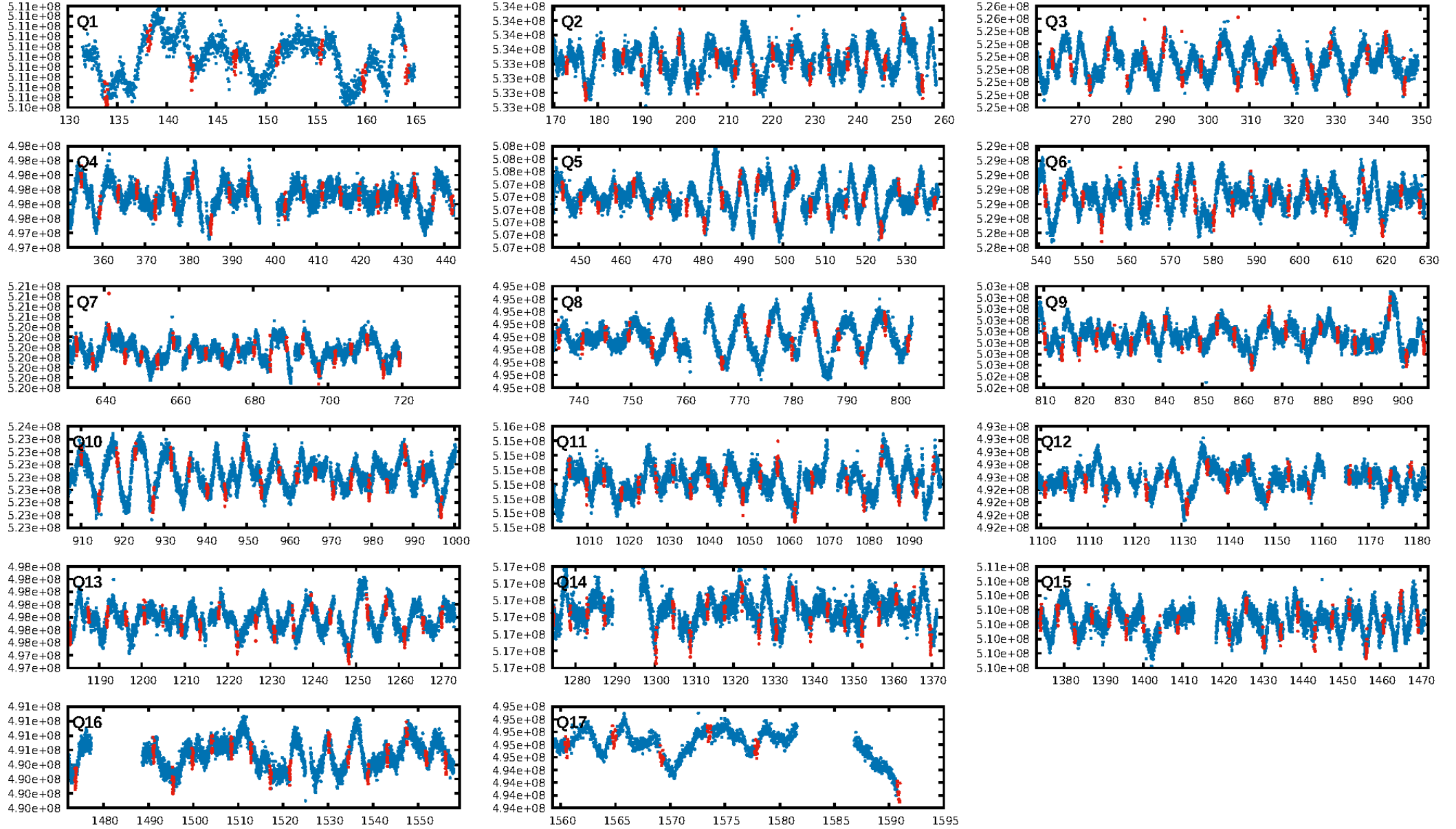
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.95 [284/298]
GhostDiagnostic-chr: -679.3
Centroid-sig: 15.3%
Centroid-so: 0.485 arcsec [2.10σ]
OotOffset-rm: 0.090 arcsec [0.37σ]
KicOffset-rm: 0.090 arcsec [0.42σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

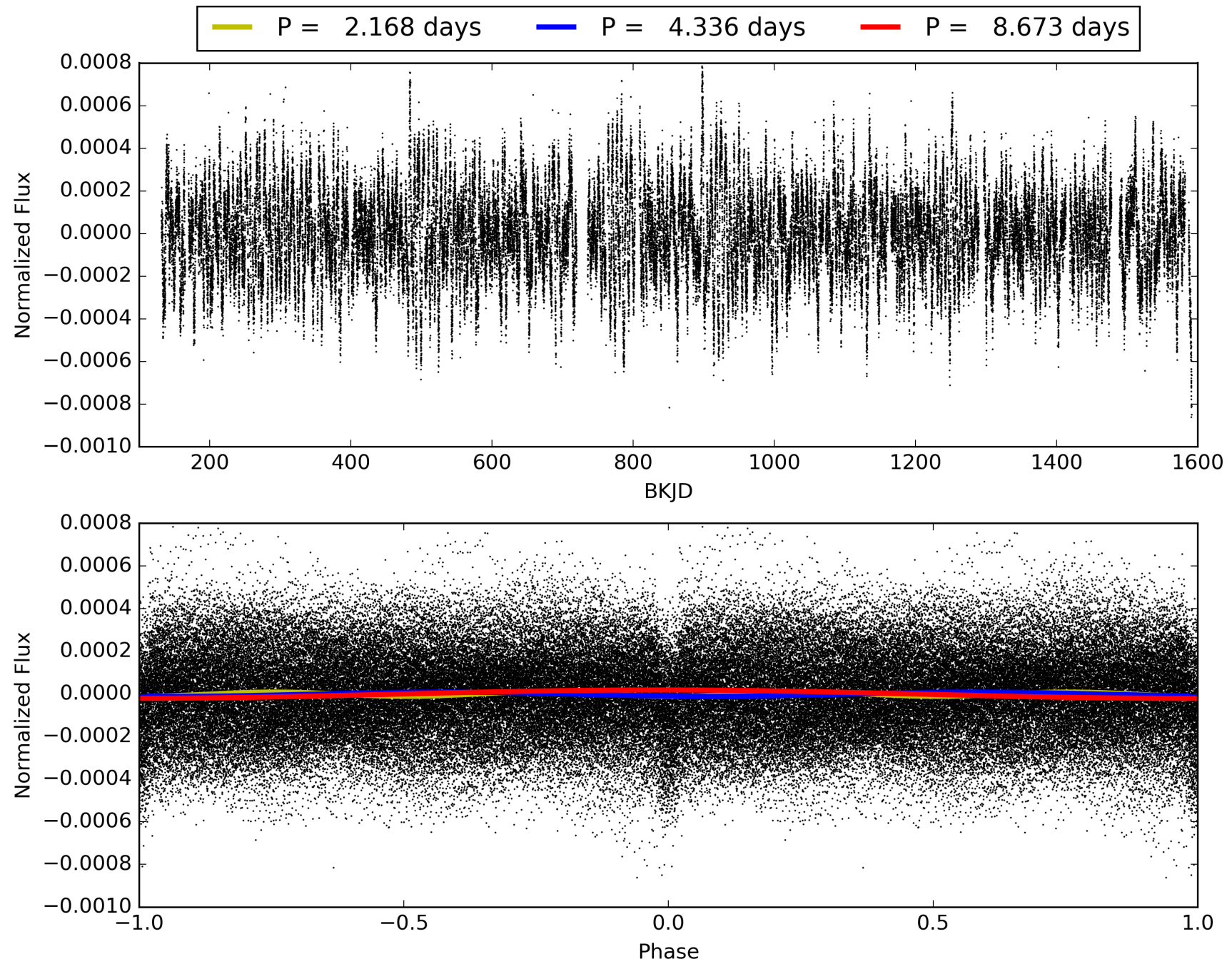
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:30:55 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007449136-01, PDC Light Curves

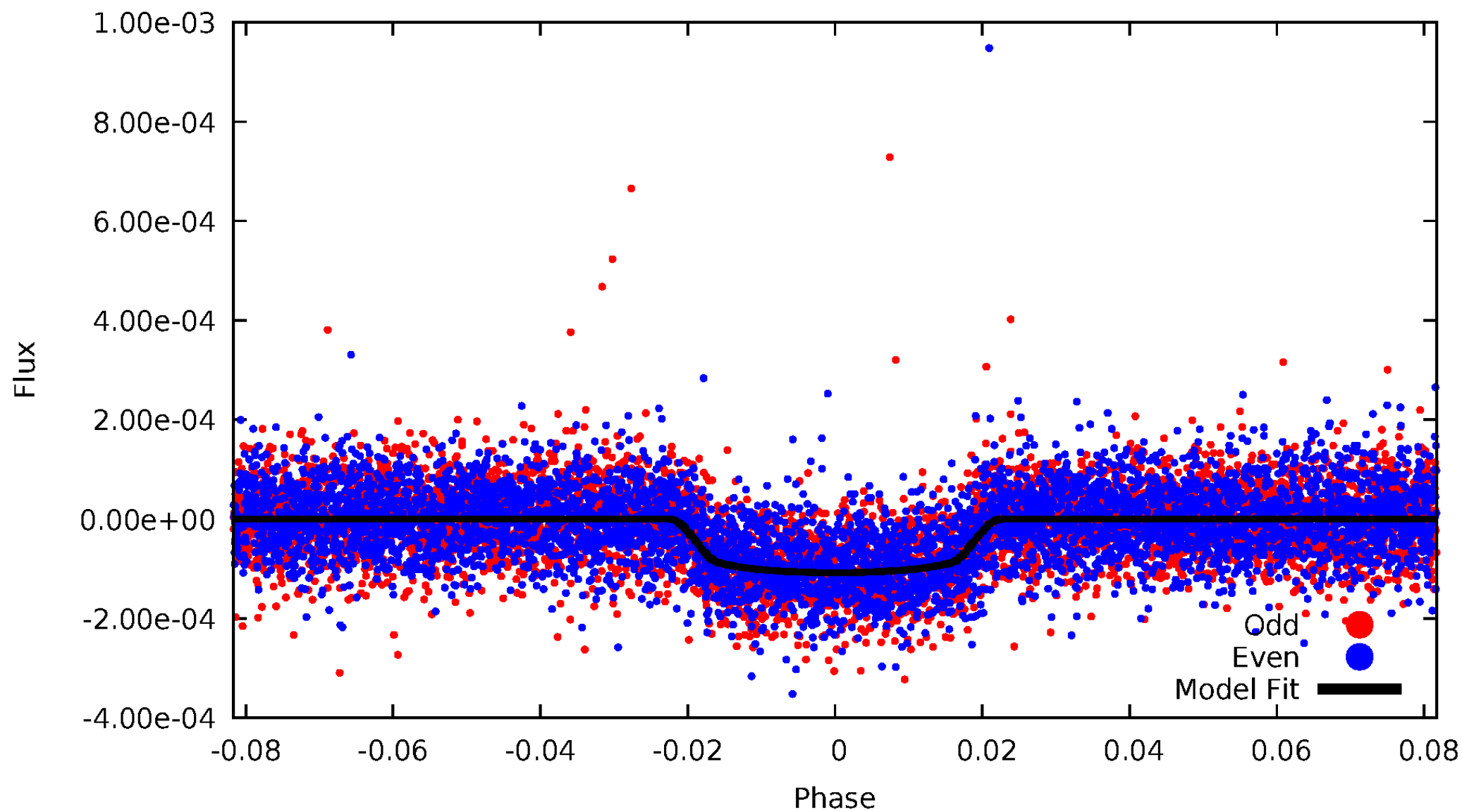


TCE 007449136-01



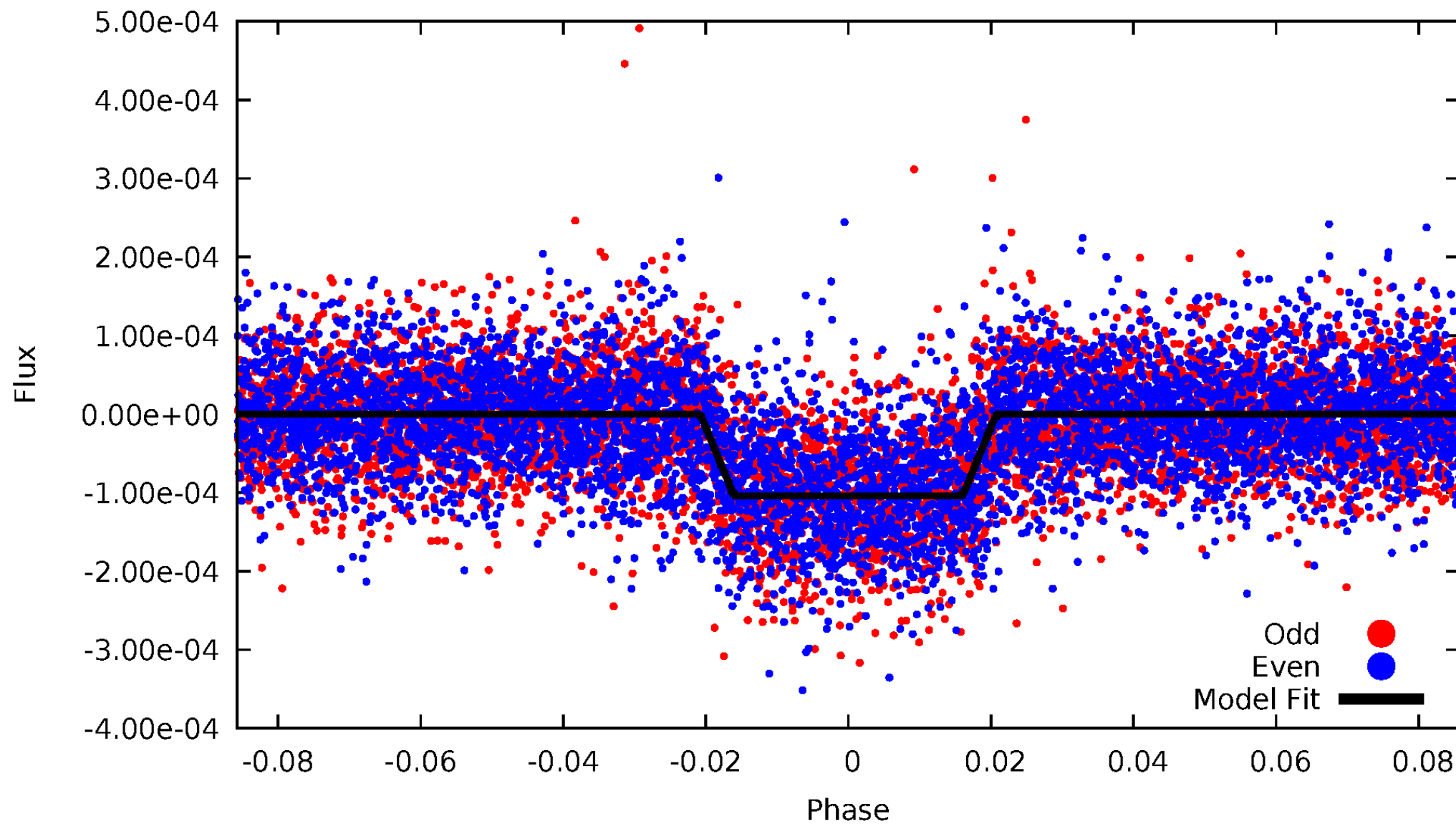
DV Odd/Even

TCE 007449136-01



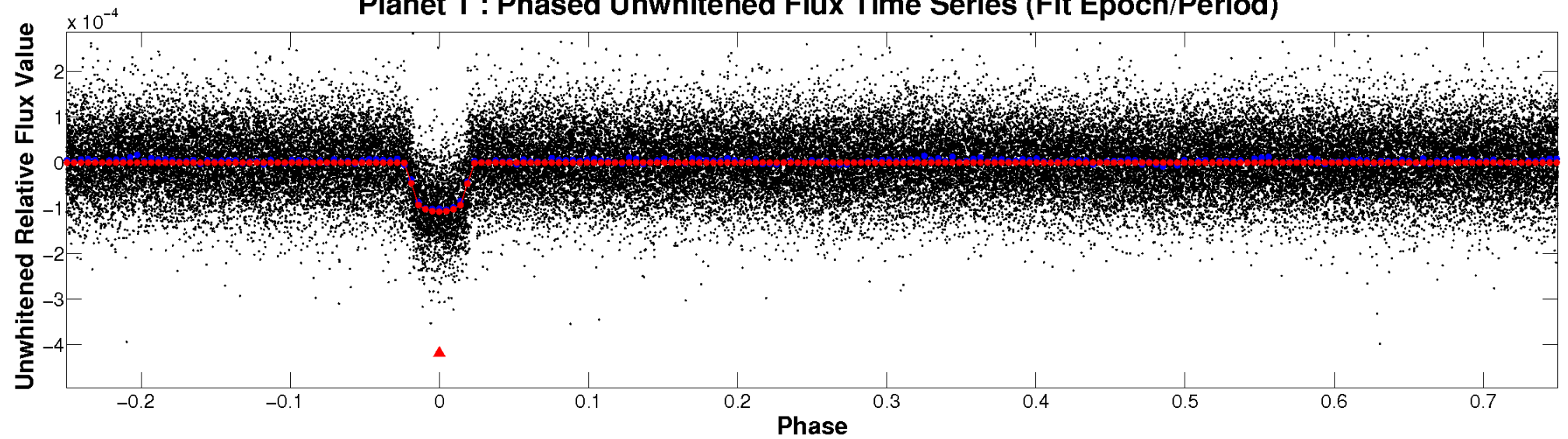
ALT Odd/Even

TCE 007449136-01

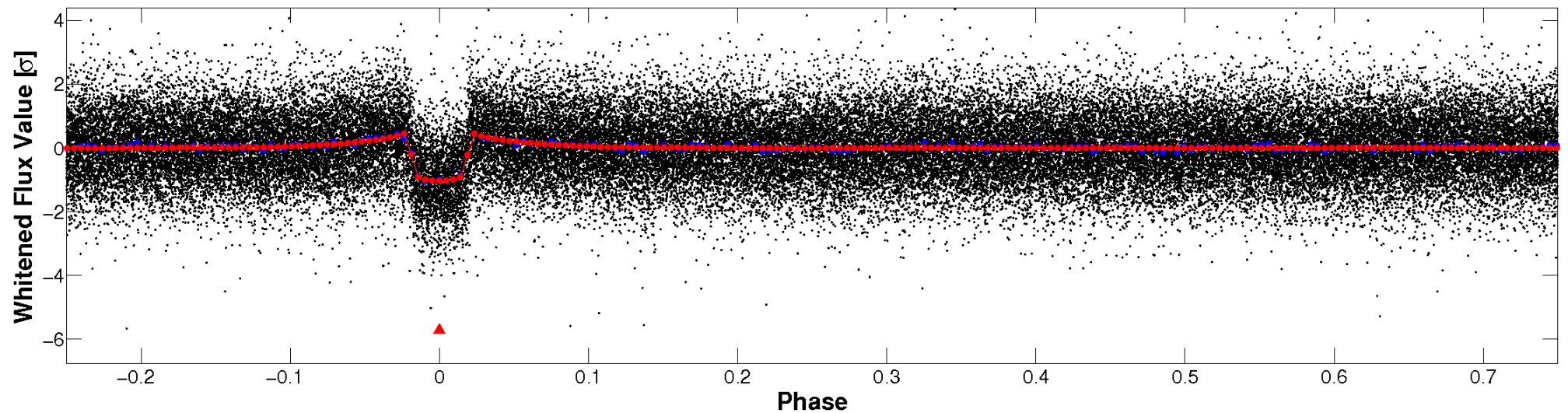


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

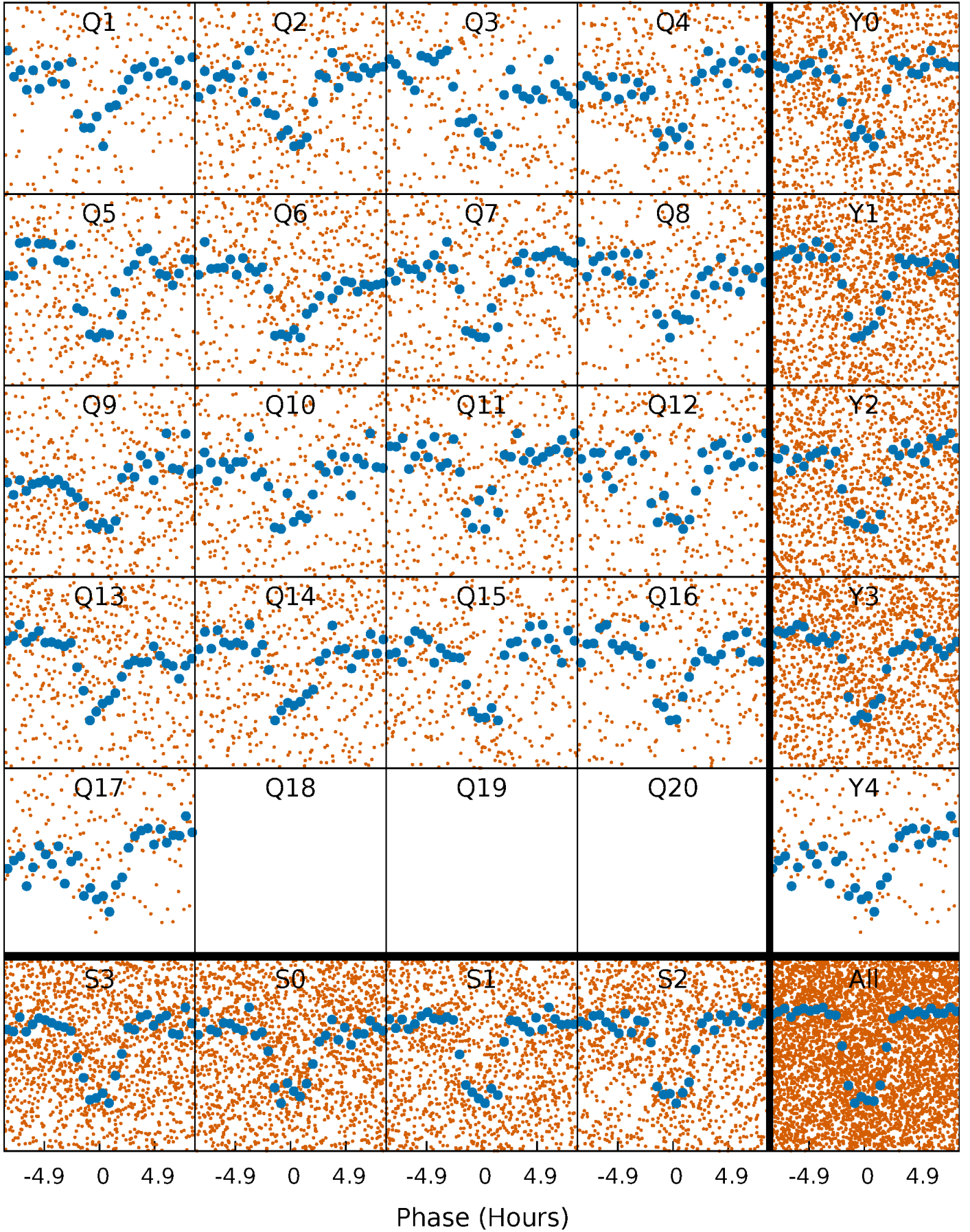


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



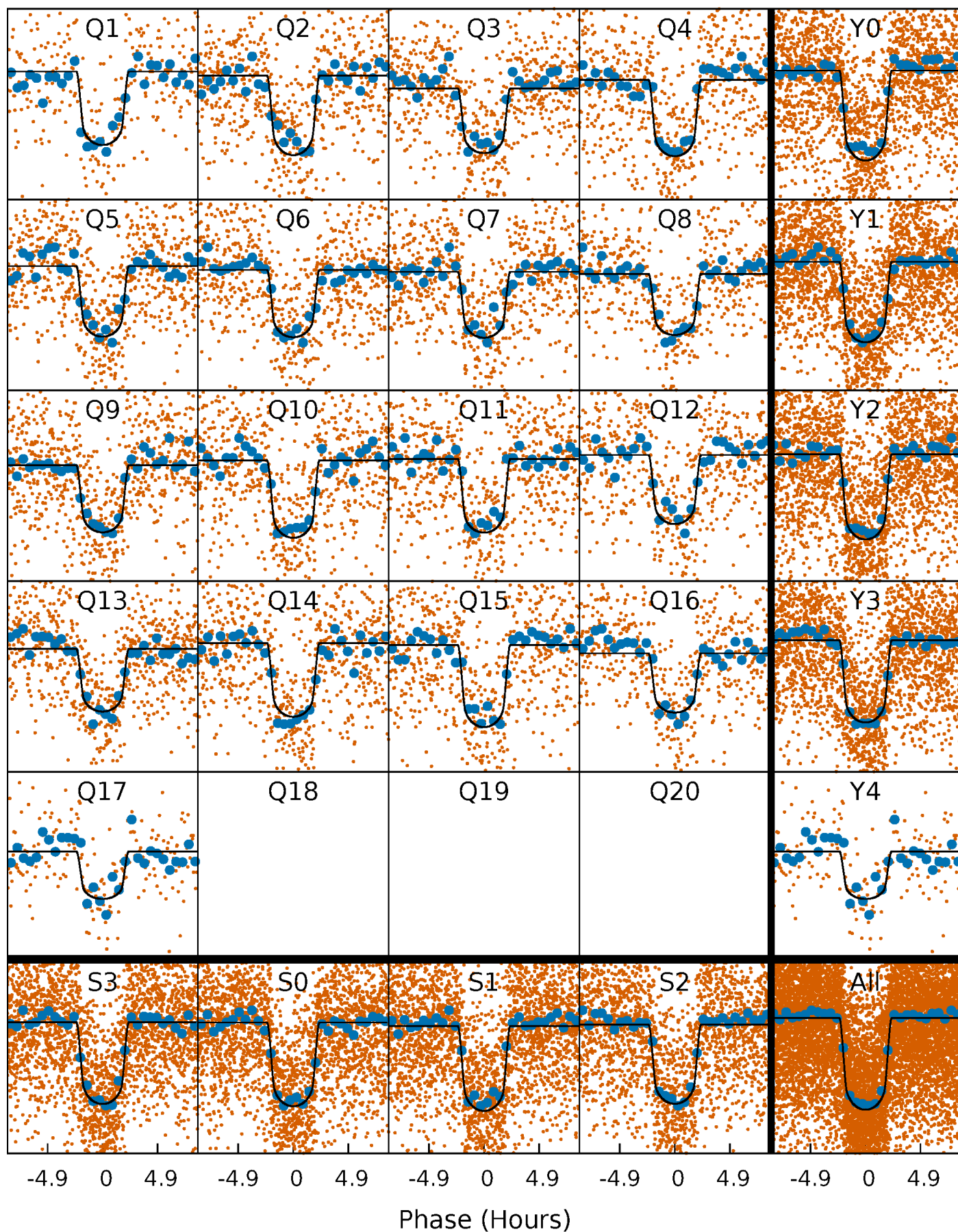
PDC Quarter-Phased Transit Curves

TCE 007449136-01 P= 4.336419 Days $T_0=133.856686$ (BKJD)



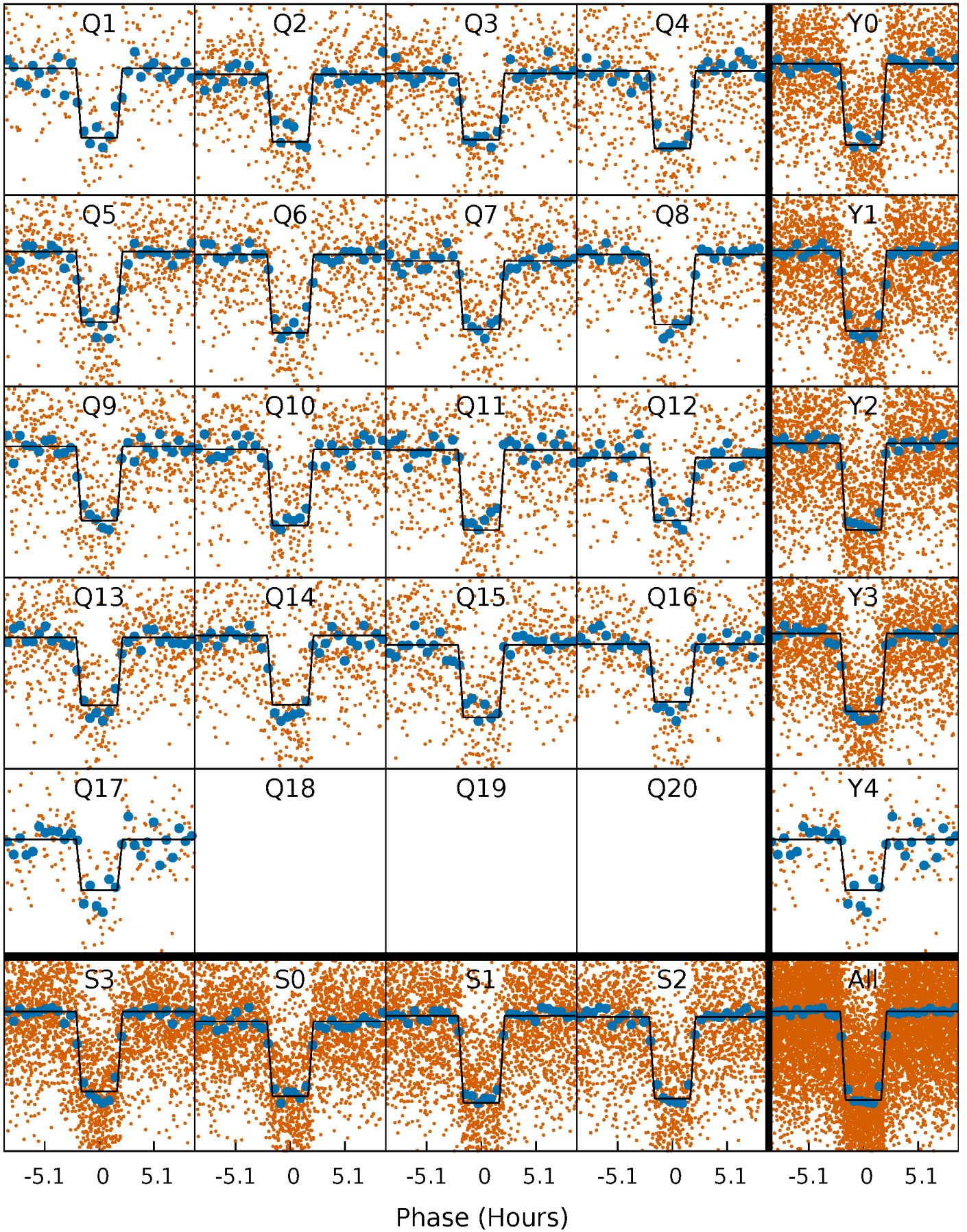
DV Quarter-Phased Transit Curves

TCE 007449136-01 P= 4.336419 Days $T_0=133.856686$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

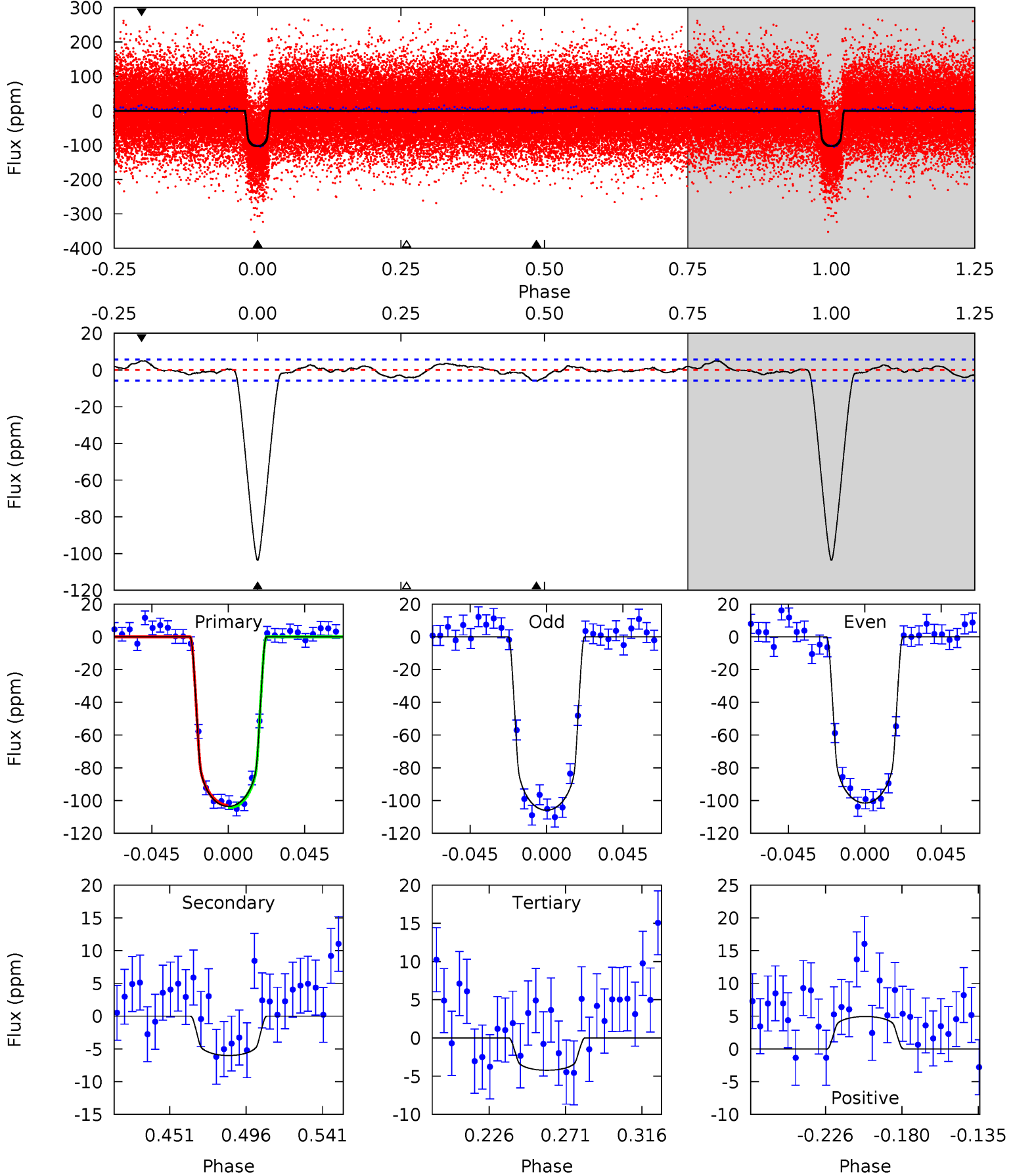
TCE 007449136-01 P= 4.336449 Days $T_0=133.851779$ (BKJD)



DV Model-Shift Uniqueness Test

007449136-01, P = 4.336419 Days, E = 129.520267 Days

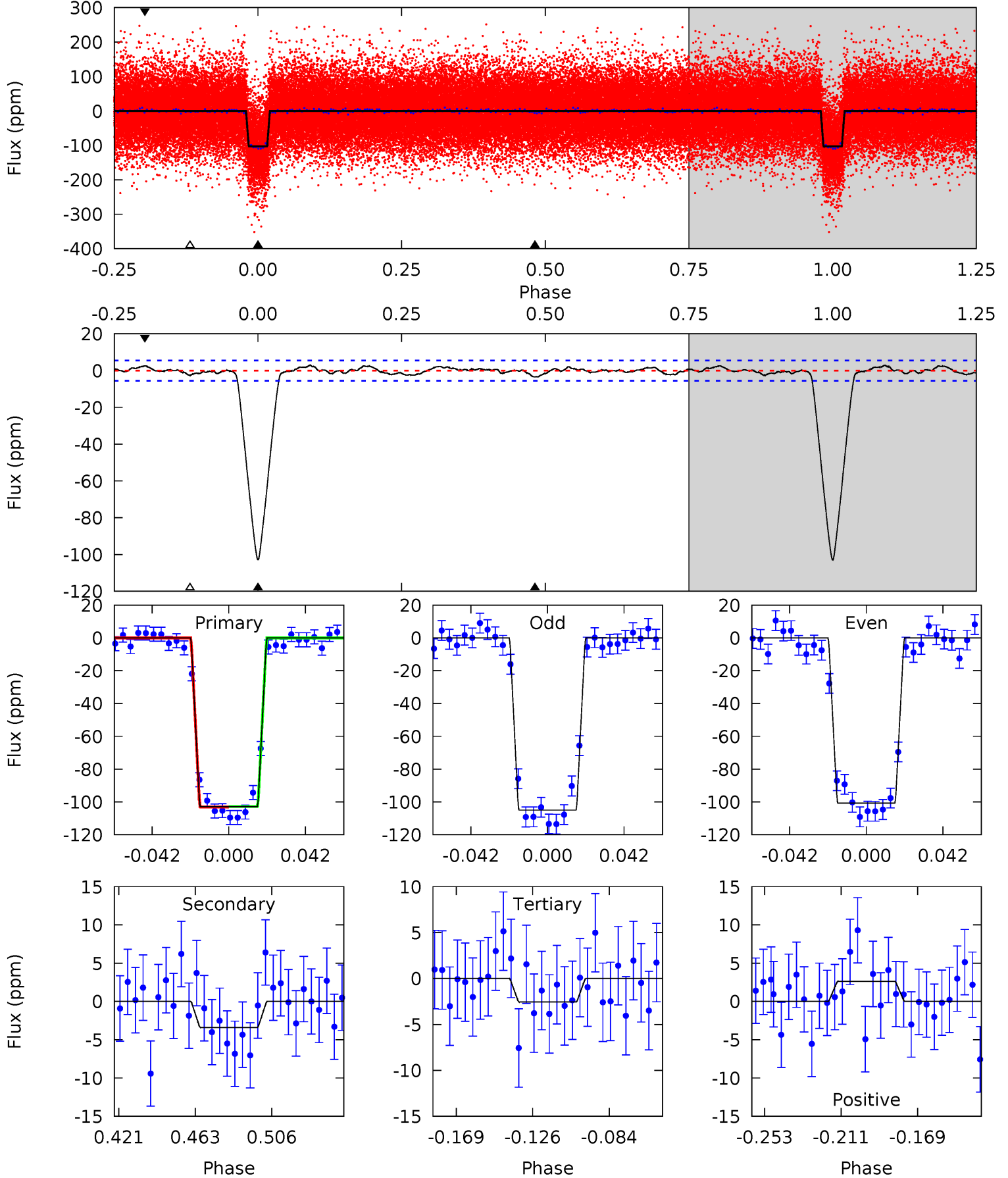
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
85.2	4.94	3.48	4.06	4.73	2.00	1.55	81.7	81.1	1.47	0.88	1.81	1.00	0.05	0.57



Alt Model-Shift Uniqueness Test

007449136-01, P = 4.336449 Days, E = 129.515330 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
88.5	2.92	2.20	2.26	4.74	2.03	1.05	86.3	86.2	0.72	0.67	1.83	1.02	0.03	0.11



Stellar Parameters For KIC 007449136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6180^{+74}_{-80}	$4.133^{+0.015}_{-0.015}$	$0.120^{+0.150}_{-0.150}$	$1.603^{+0.057}_{-0.082}$	$1.275^{+0.064}_{-0.128}$	$0.436^{+0.031}_{-0.023}$
	+1%/-1%	+0%/-0%	+125%/-125%	+4%/-5%	+5%/-10%	+7%/-5%
Source	SPE72	AST8	SPE72	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007449136-01 / KOI 1890.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 1	$1.96^{+0.14}_{-0.15}$	2029^{+28}_{-31}	3349^{+139}_{-134}	$2.754^{+0.715}_{-0.613}$
Alt.	-3 ± 1	$1.79^{+0.15}_{-0.14}$	2029^{+30}_{-28}	3127^{+193}_{-228}	$1.823^{+0.766}_{-0.622}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

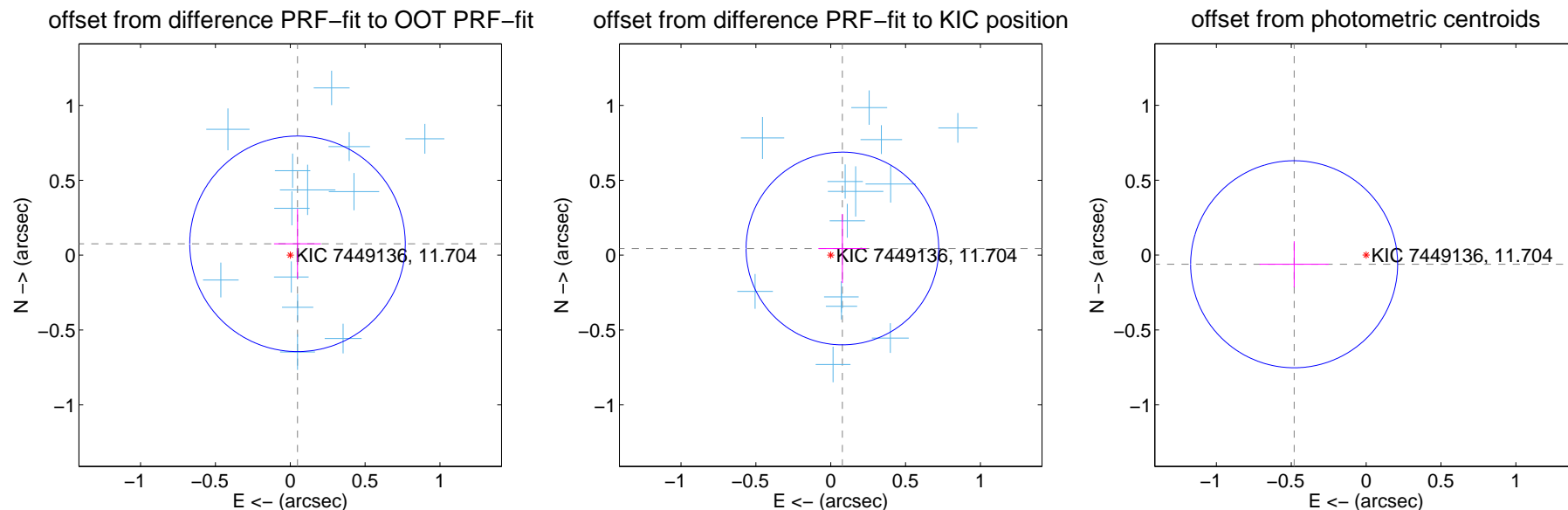
DV Centroid Data

Supplemental centroid analysis for 007449136-01. **Kepler magnitude: 11.70.** Transit SNR 49.60

There are 15 quarters with good PRF difference image offsets

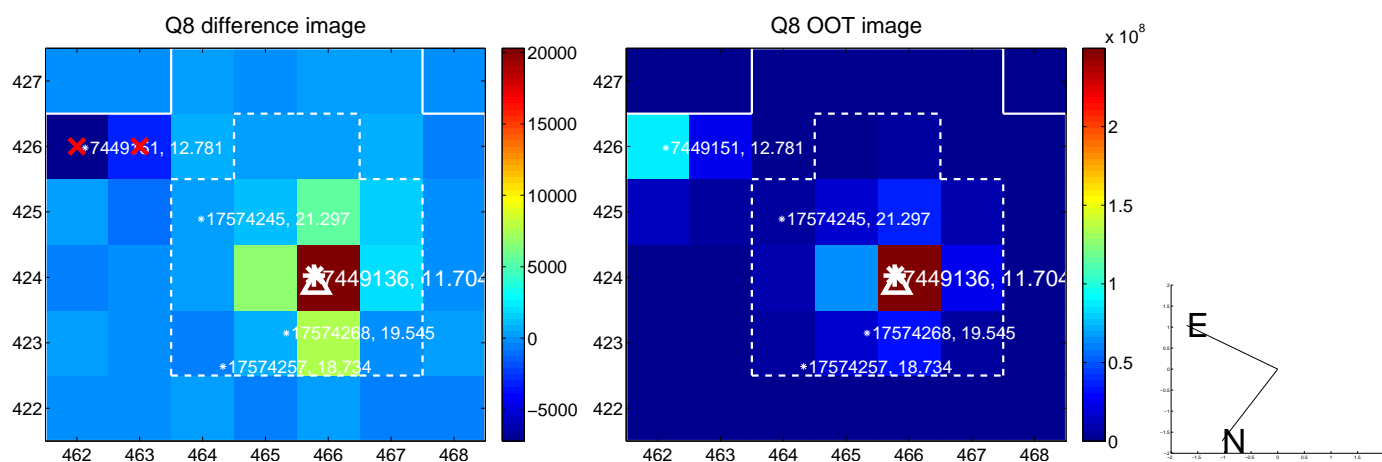
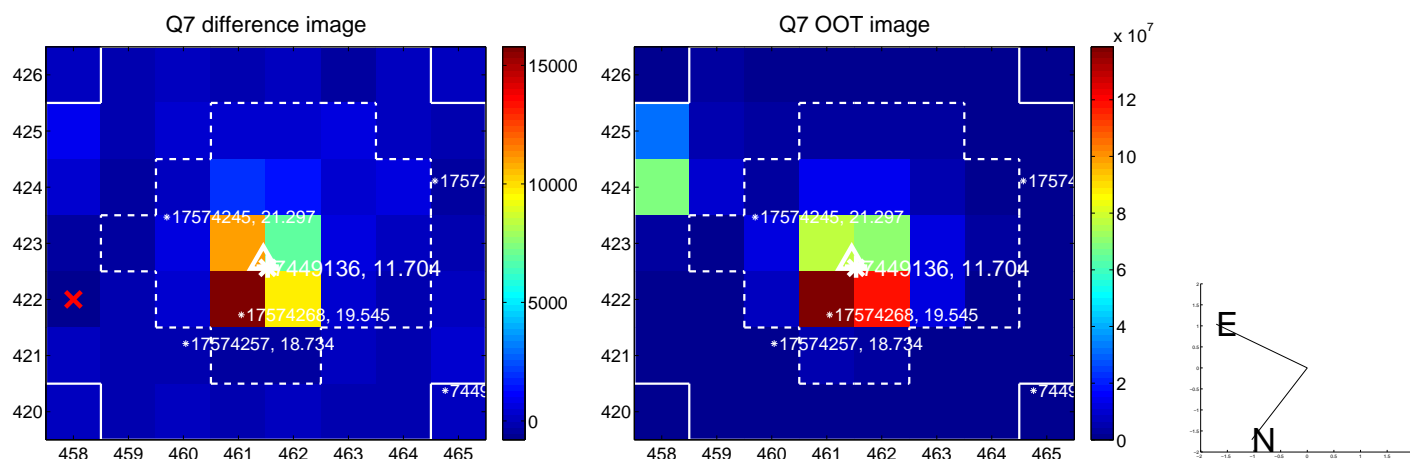
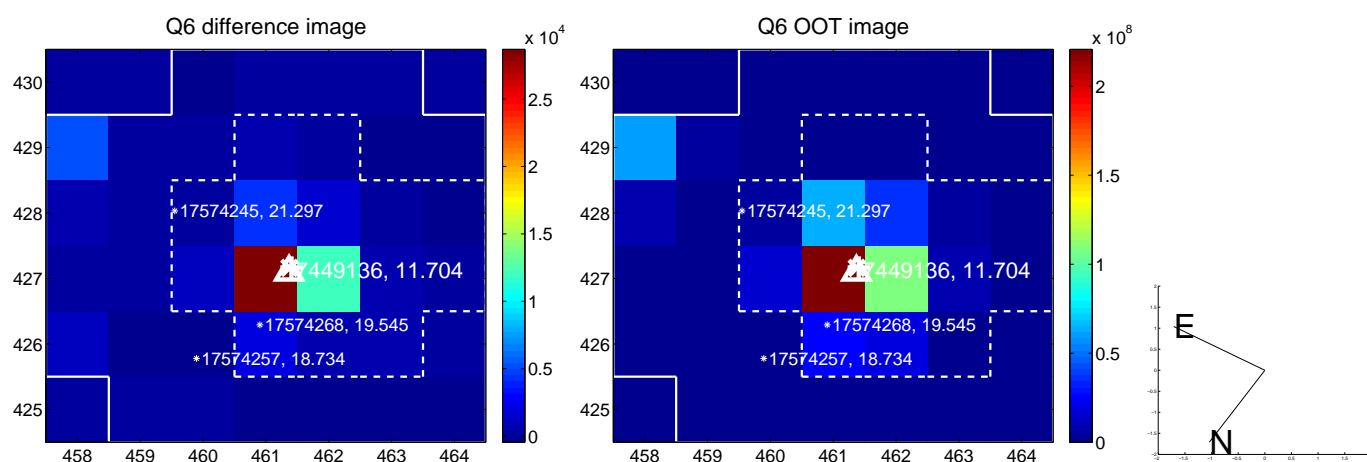
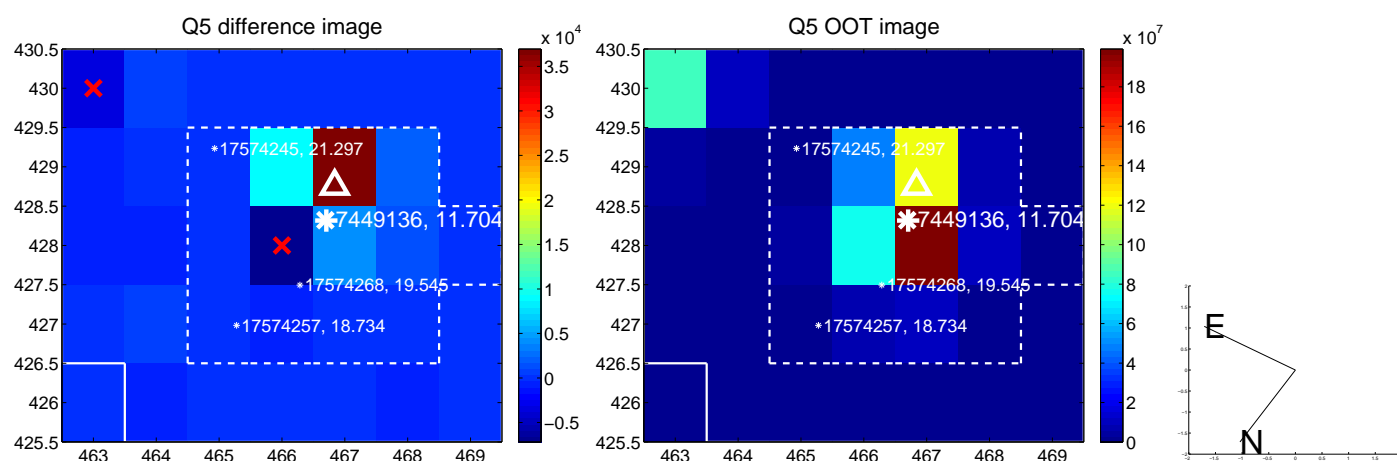
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.090 ± 0.240	0.37	-0.048 ± 0.157	0.076 ± 0.233
PRF-fit source offset from KIC position	0.090 ± 0.215	0.42	-0.078 ± 0.160	0.045 ± 0.231
photometric centroid source offset	0.48 ± 0.23	2.10	0.48 ± 0.23	-0.06 ± 0.15

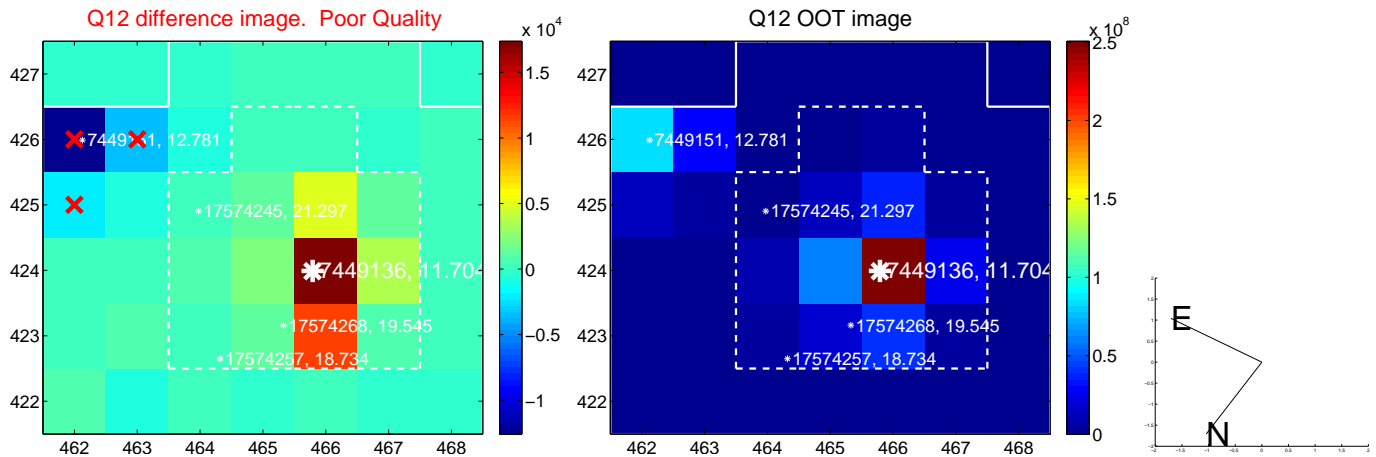
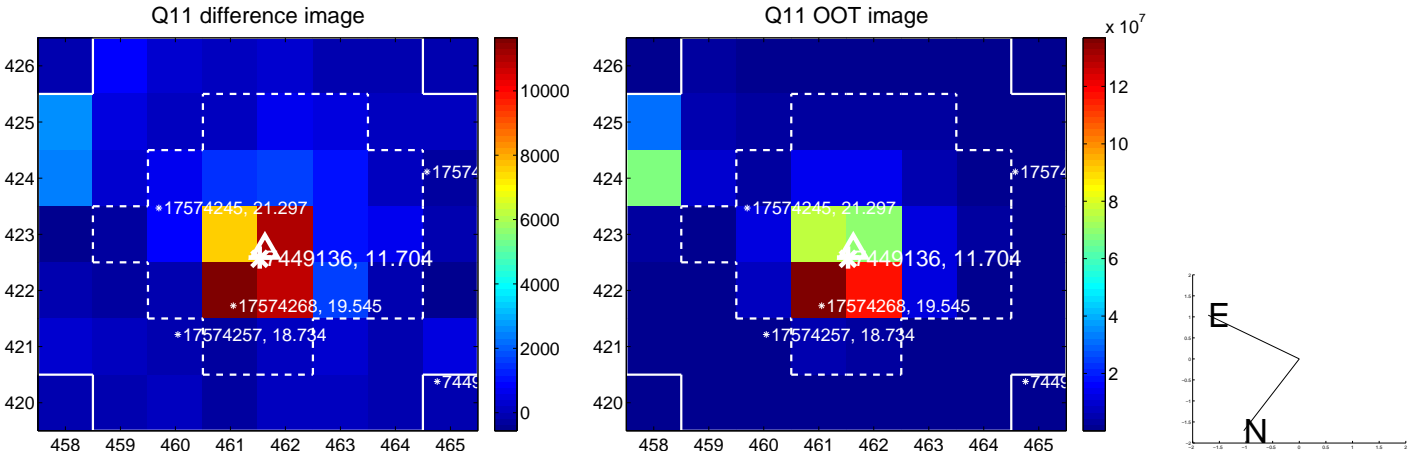
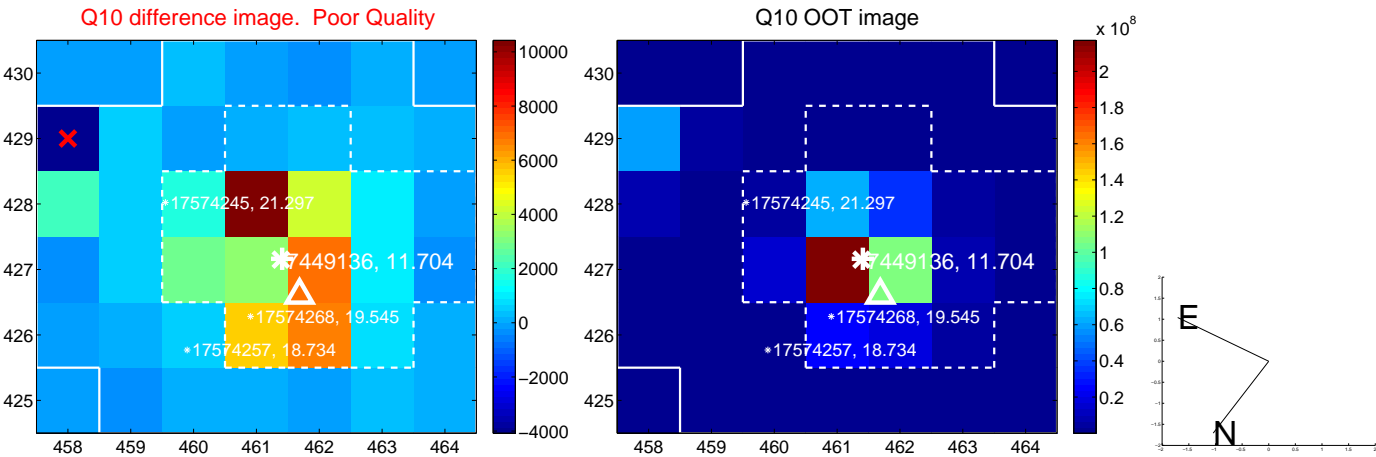
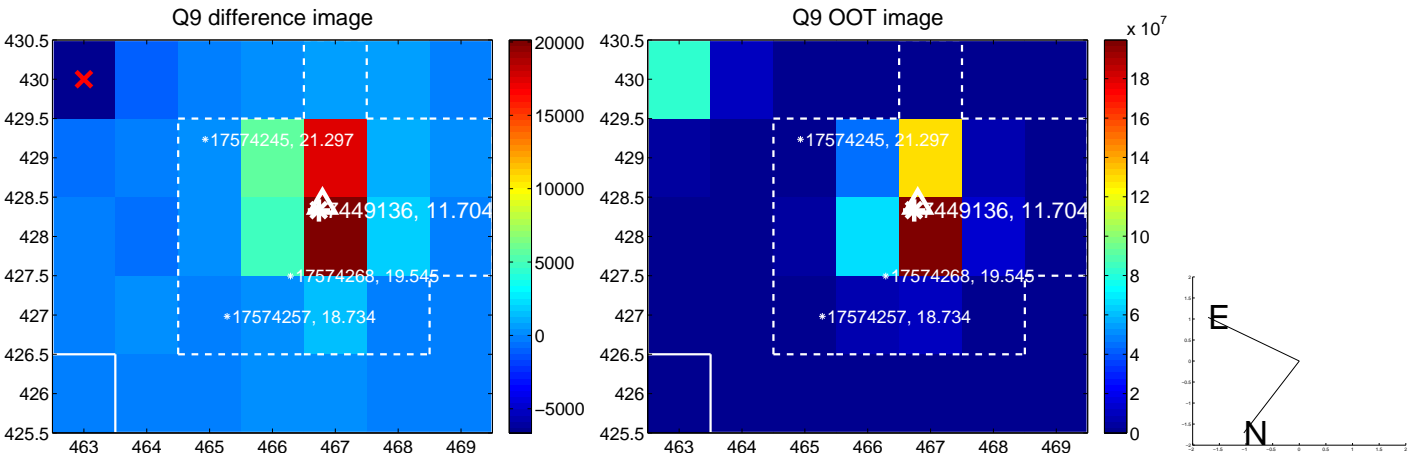


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

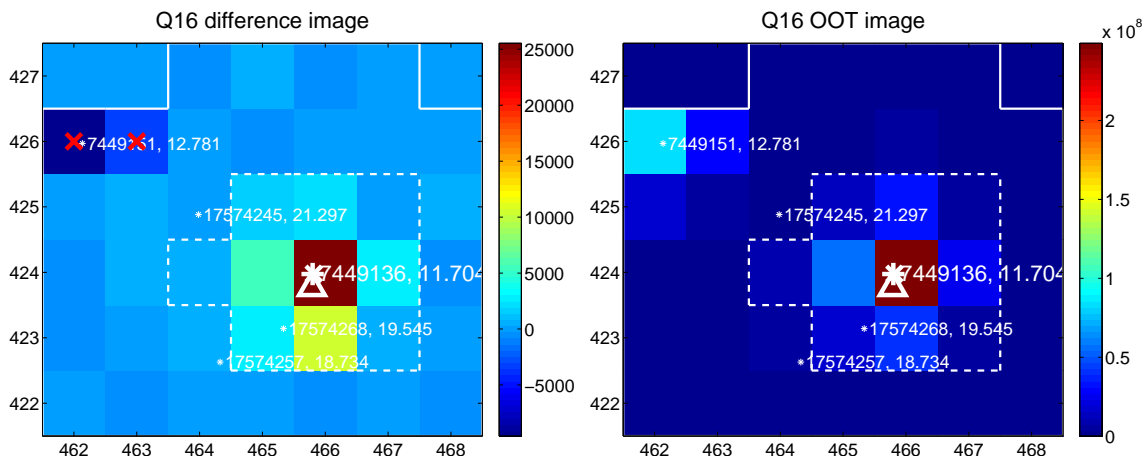
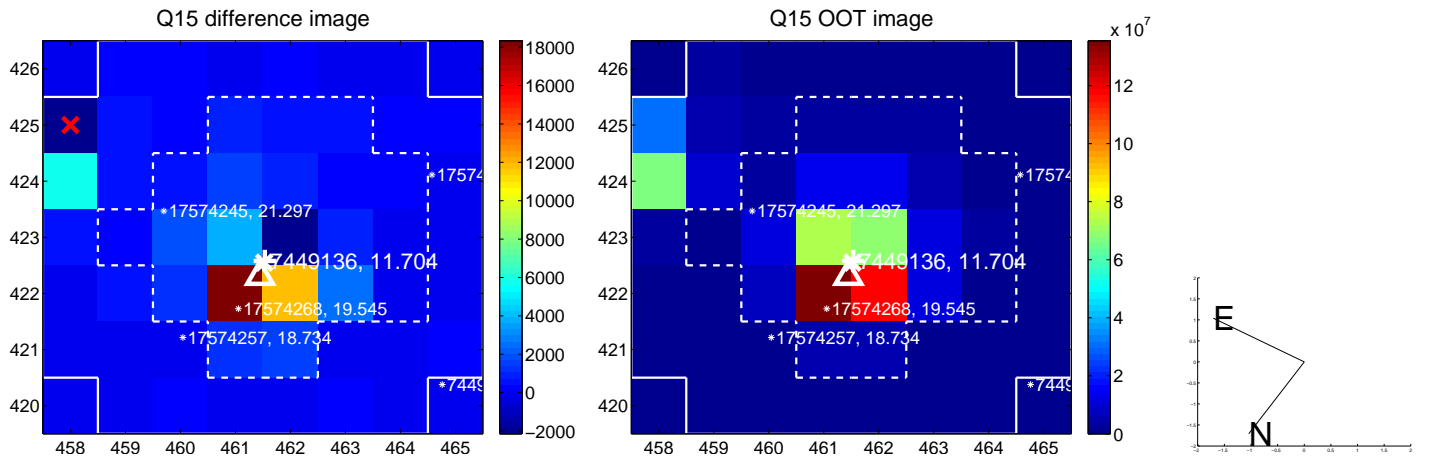
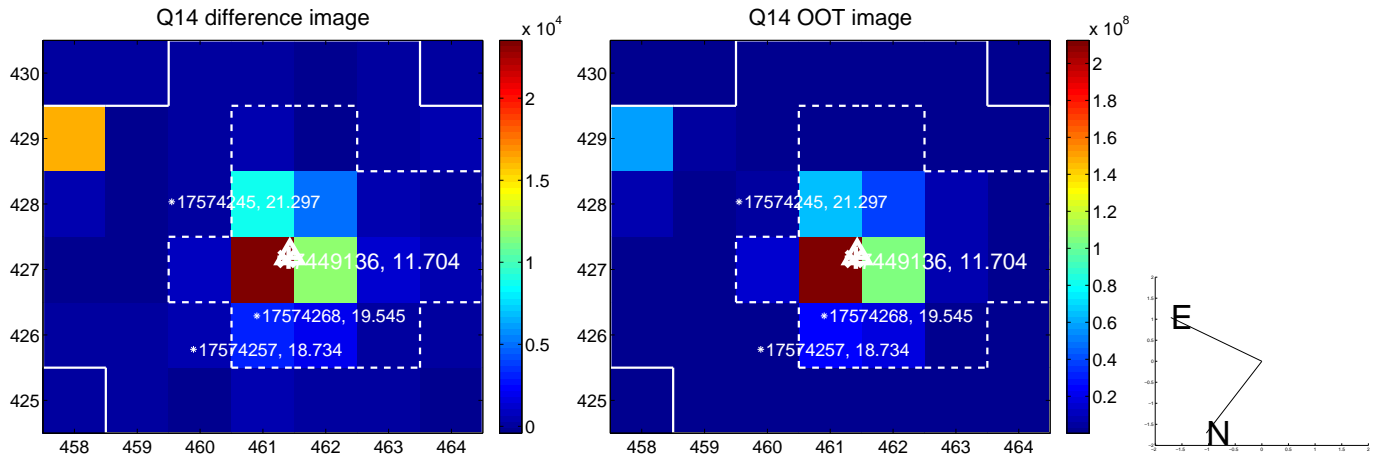
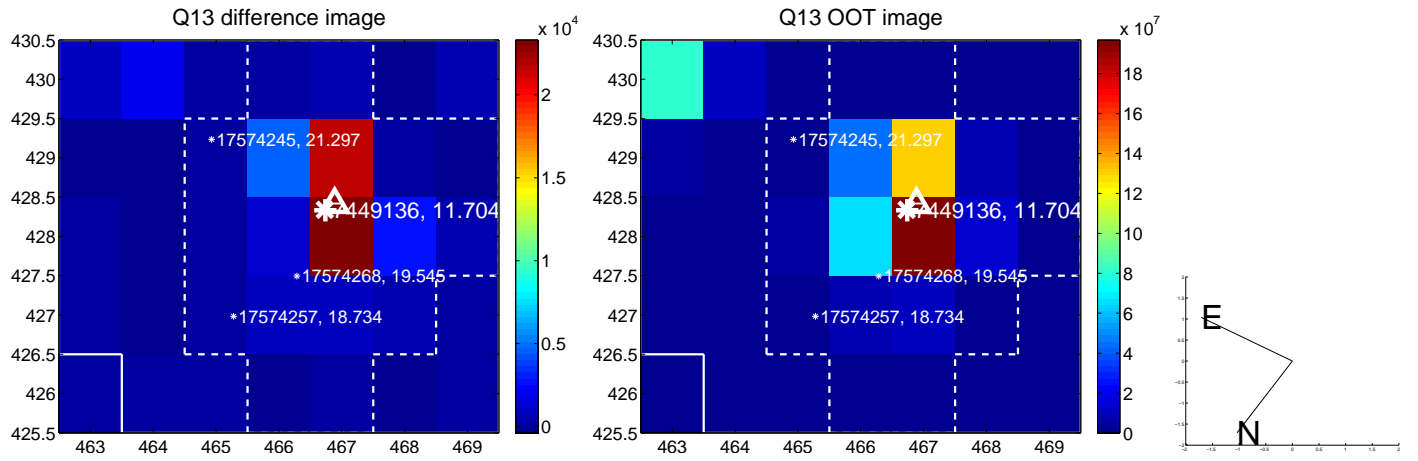
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



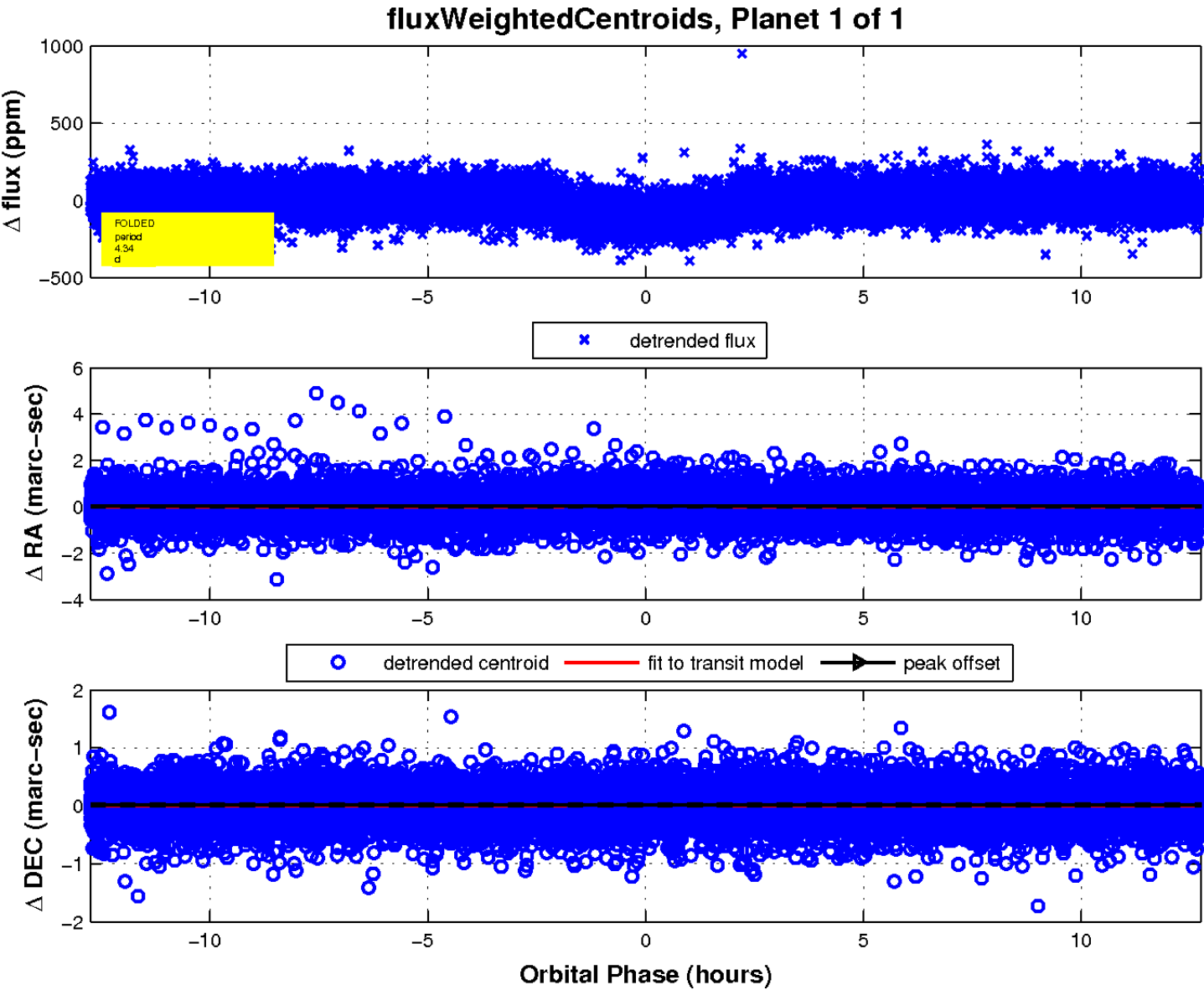
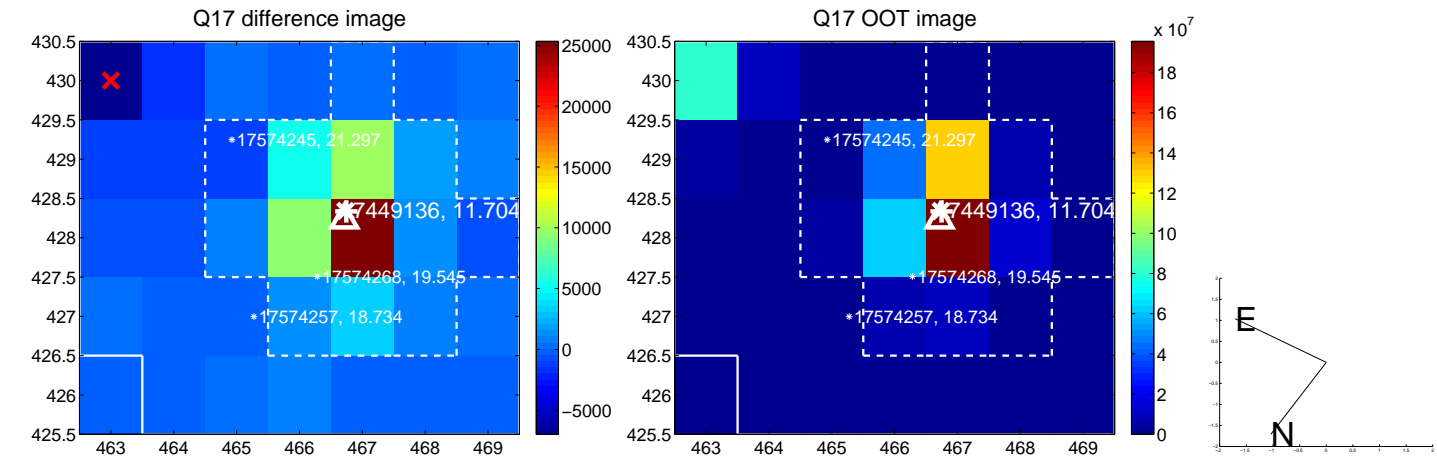
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

