

KIC 011350389

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})
011350389-01	OBS	7438.01	1.512659	132.021399	22699.6	1.925	1033.5	671.9	0.81	5258	16.61	803.90
011350389-02	OBS	No	1.512368	133.090330	81.5	4.308	8.3	5.2	0.81	5258	0.92	804.11
011350389-03	OBS	No	48.365927	156.296018	1549.3	2.595	12.8	5.7	0.81	5258	3.35	7.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350389-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_DV—DEEP_V_SHAPED—HAS_SEC_TCE
011350389-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
011350389-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES

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.

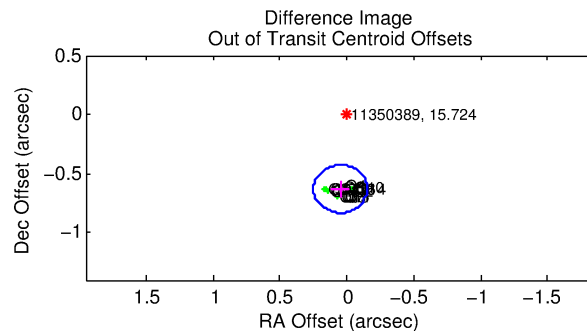
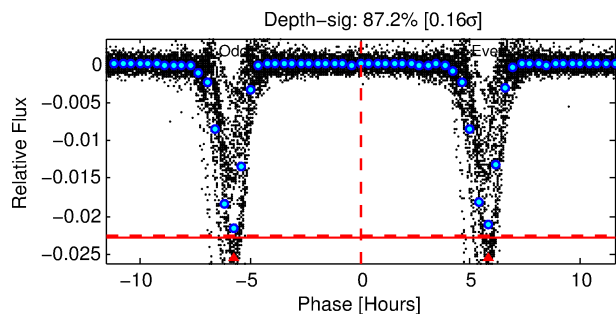
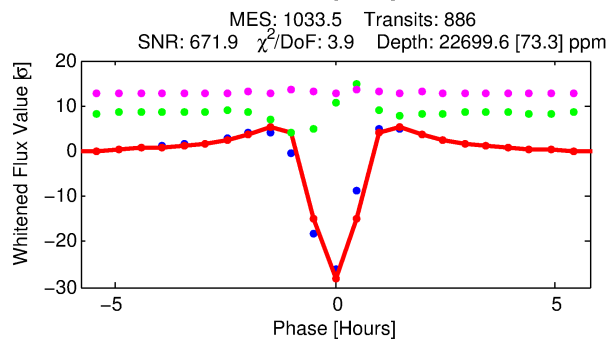
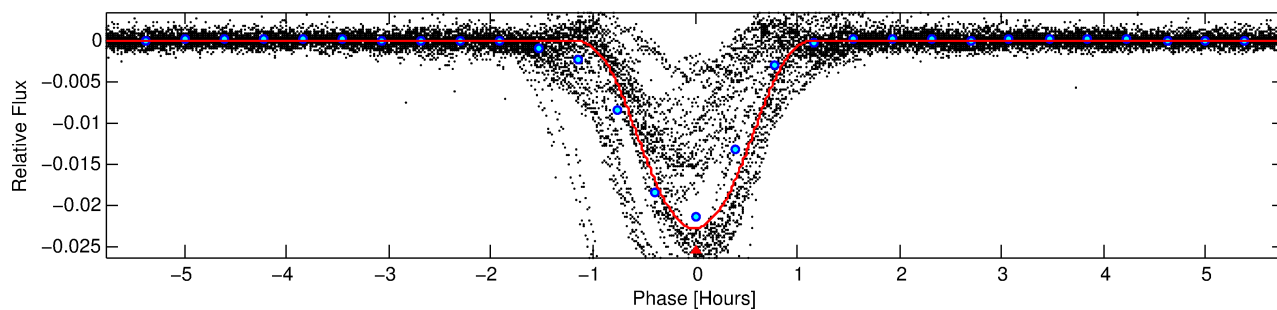
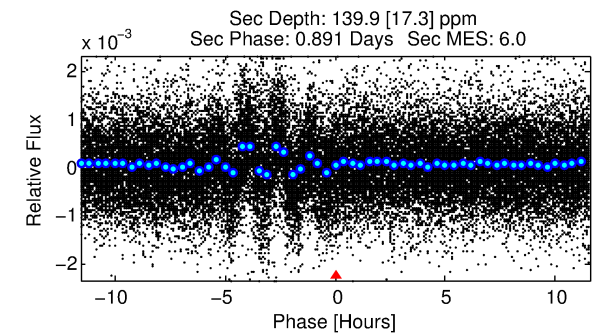
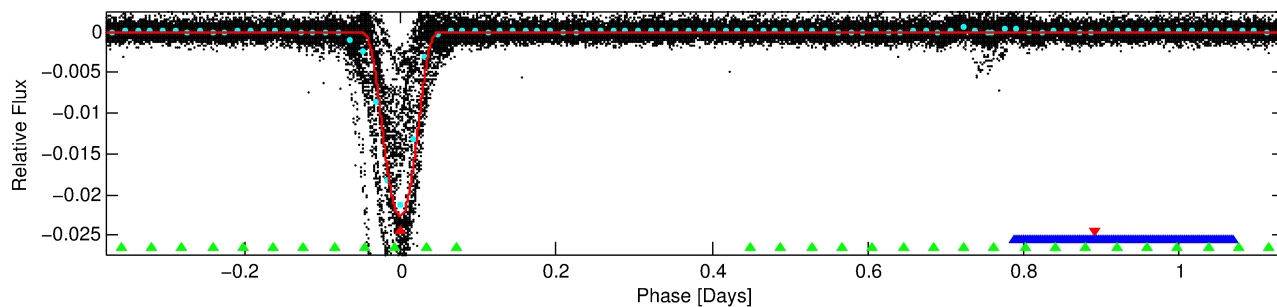
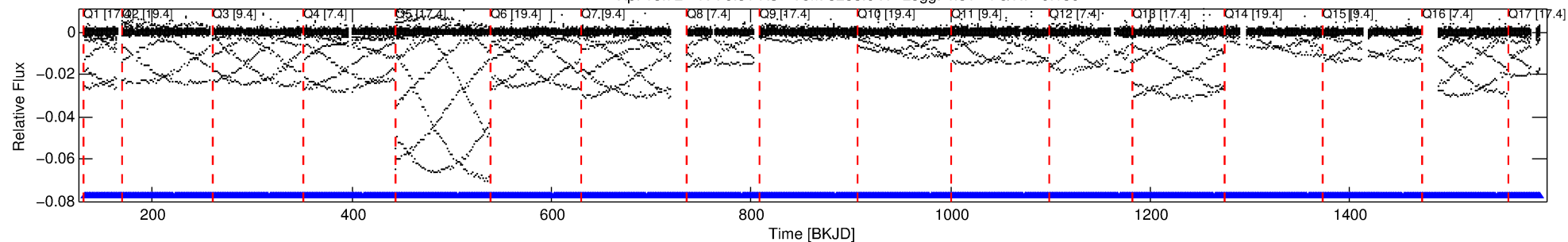
Ephemeris Match Information For 011350389-01

No Significant Match Found

DV One-Page Summary

KIC: 11350389 Candidate: 1 of 3 Period: 1.513 d
KOI: K07438.01 Corr: 0.936

Kp: 15.72 R*: 0.81 Rs Teff: 5258.0 K Logg: 4.51 Fe/H: -0.180



DV Fit Results:

Period = 1.51266 [0.00000] d
Epoch = 132.0214 [0.0000] BKJD
Rp/R* = 0.1877 [0.0088]
a/R* = 4.75 [0.05]
b = 0.90 [0.02]
Seff = 803.90 [164.77]
Teq = 1358 [70] K
Rp = 16.61 [2.42] Re
a = 0.0237 [0.0027] AU
Ag = 0.16 [0.04] [-23.75σ]
Teffp = 1320 [65] K [-0.40σ]

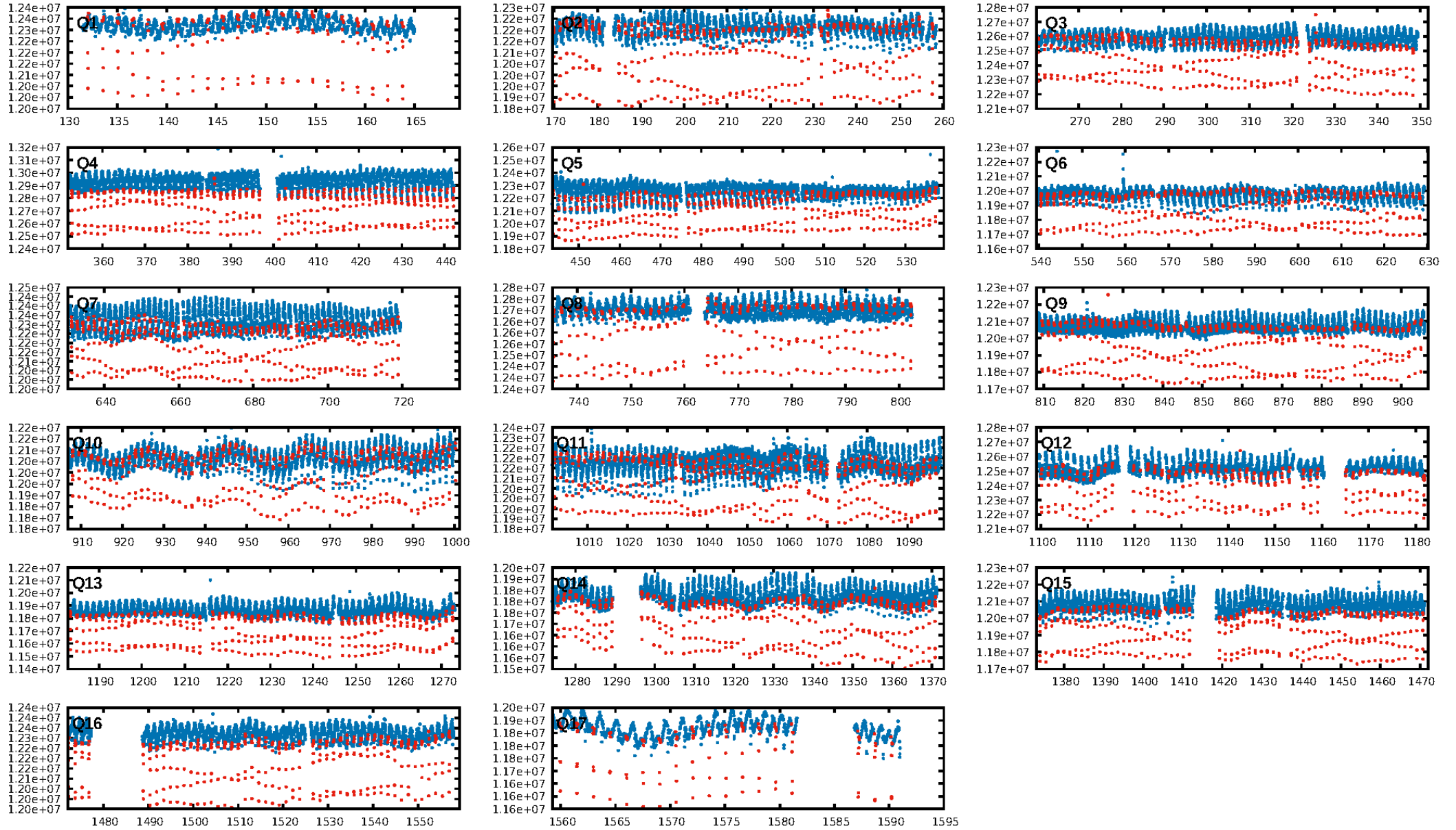
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: 100.0% [347.98σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [846/846]
GhostDiagnostic-chr: 2.001
Centroid-sig: 0.0%
Centroid-so: 0.215 arcsec [23.46σ]
OotOffset-rm: 0.633 arcsec [9.44σ]
KicOffset-rm: 0.546 arcsec [7.98σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

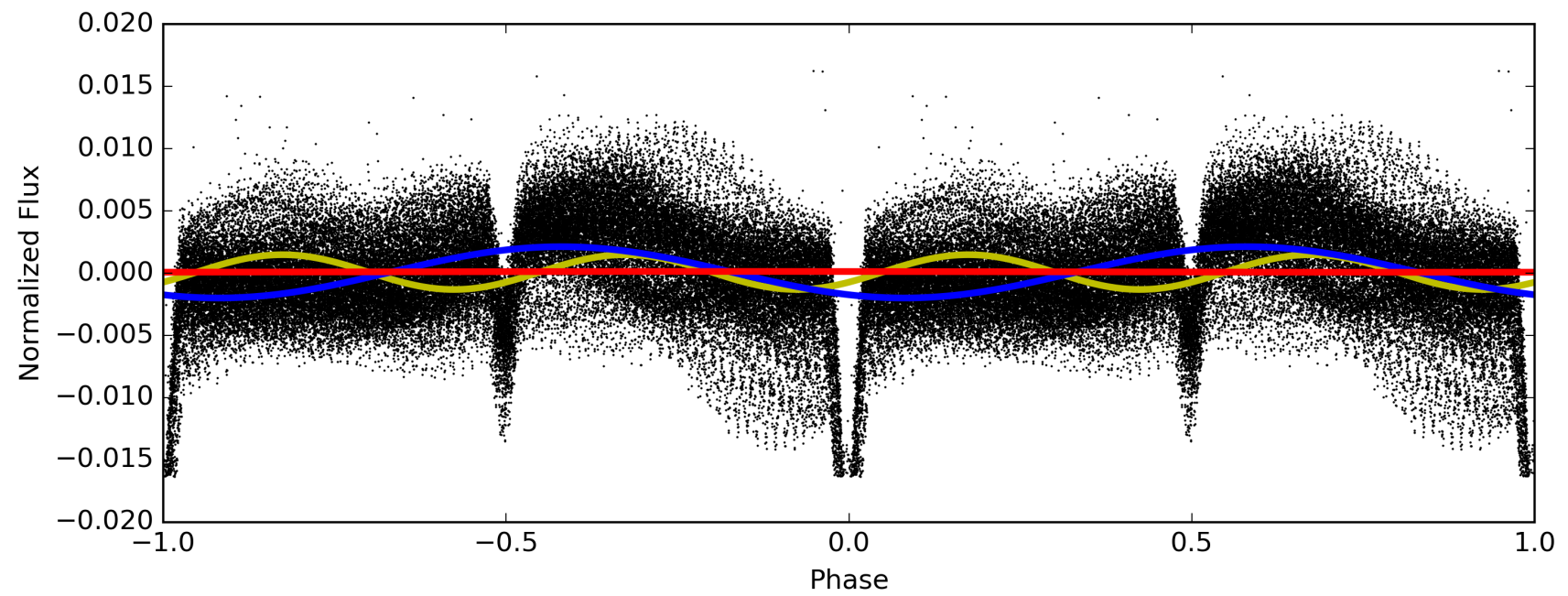
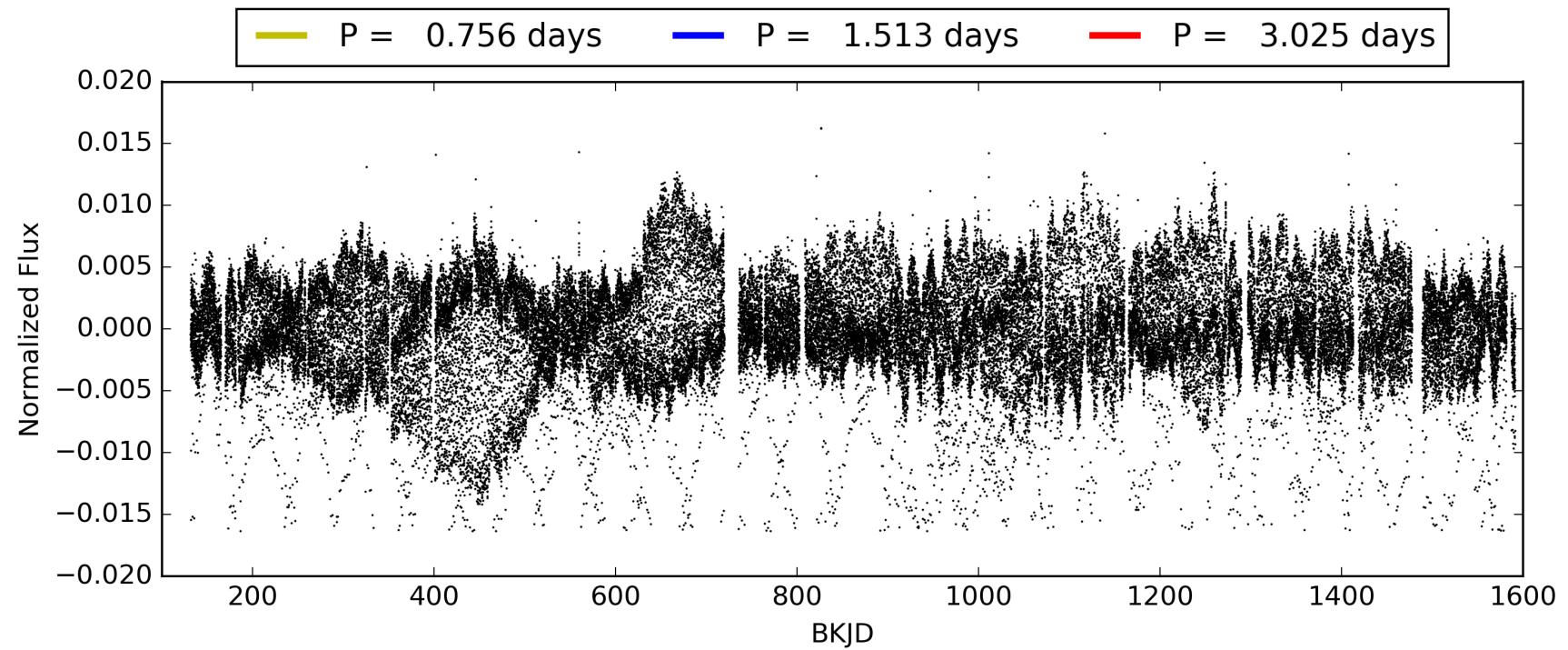
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011350389-01, PDC Light Curves

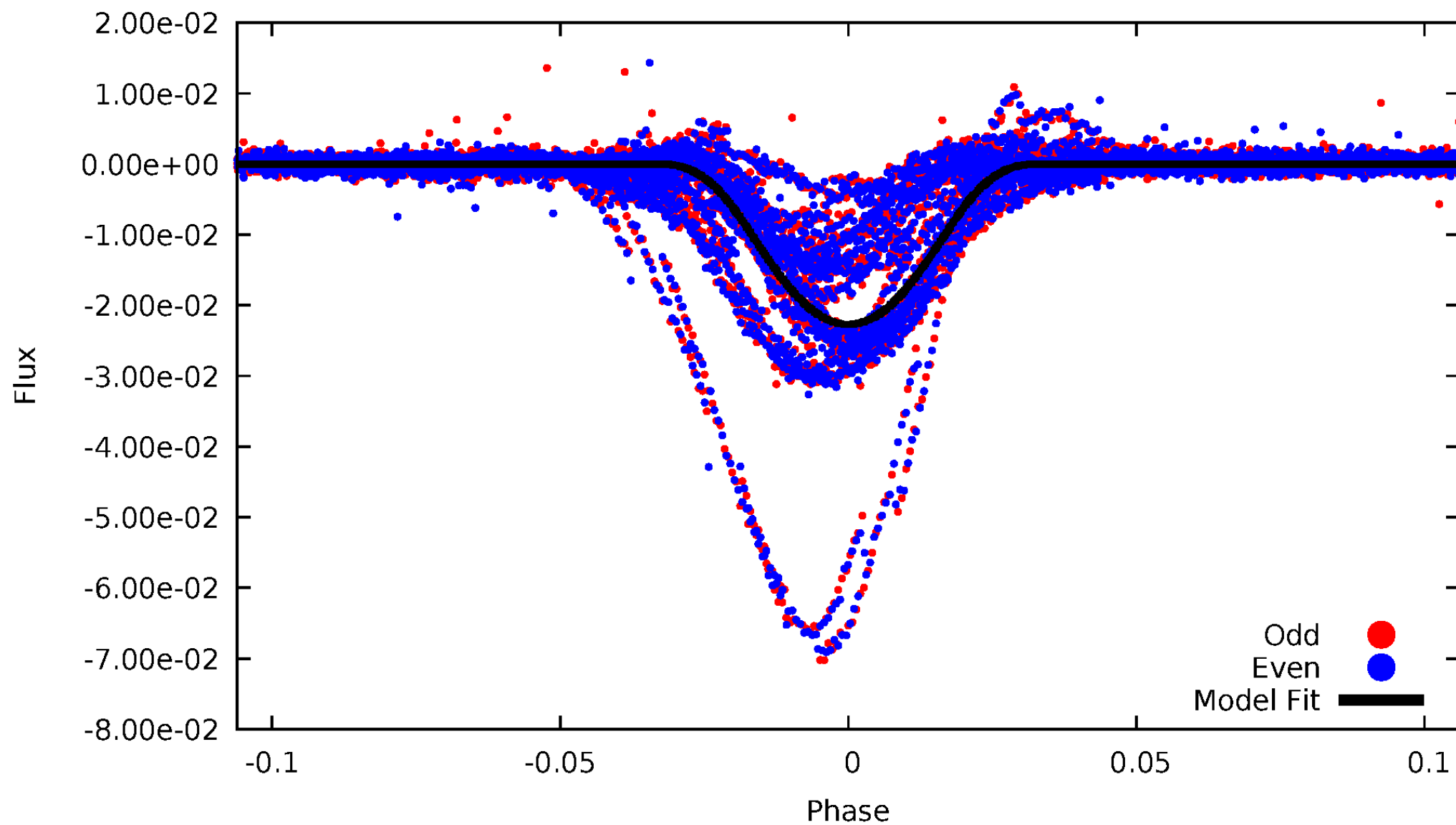


TCE 011350389-01



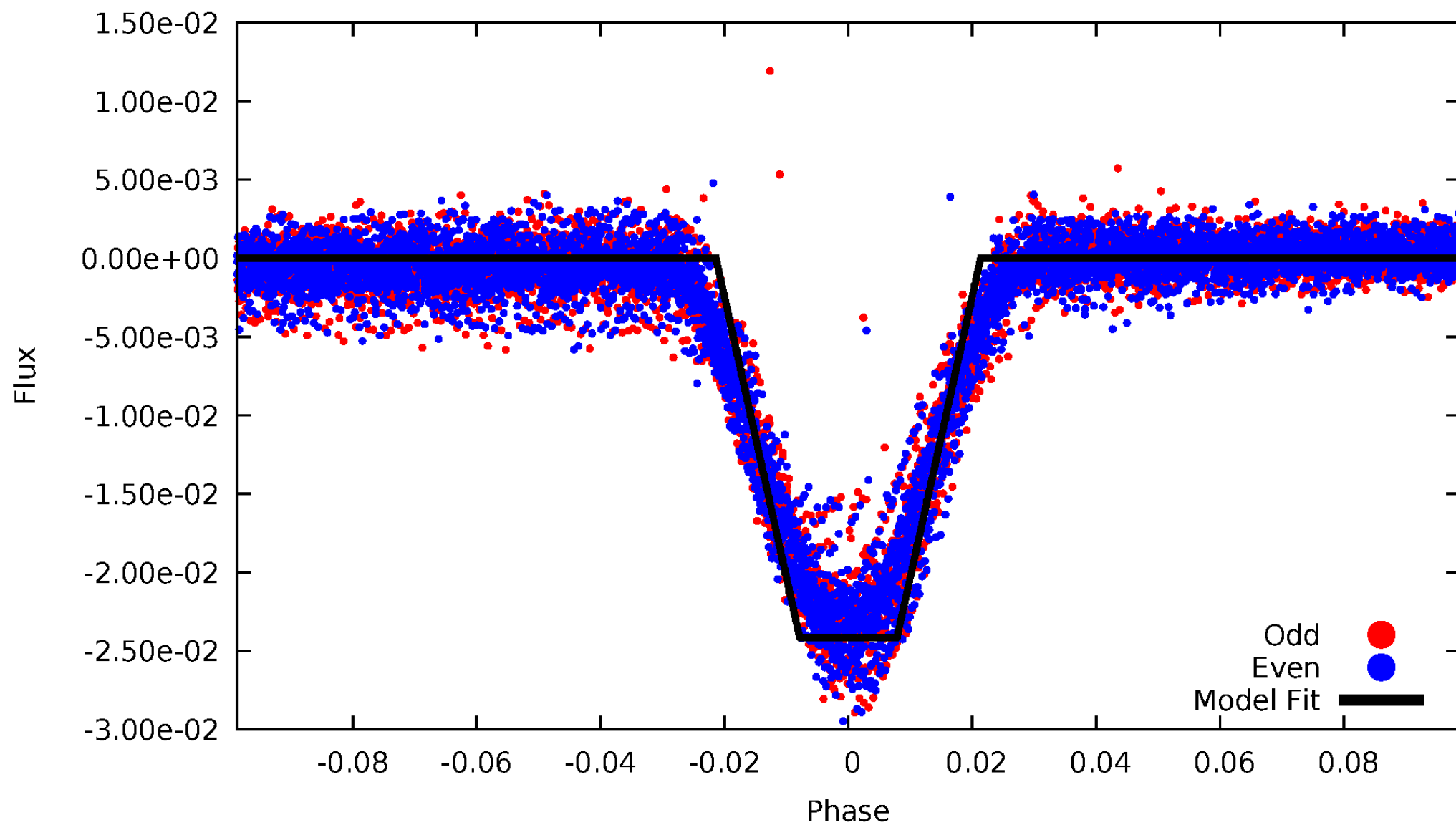
DV Odd/Even

TCE 011350389-01



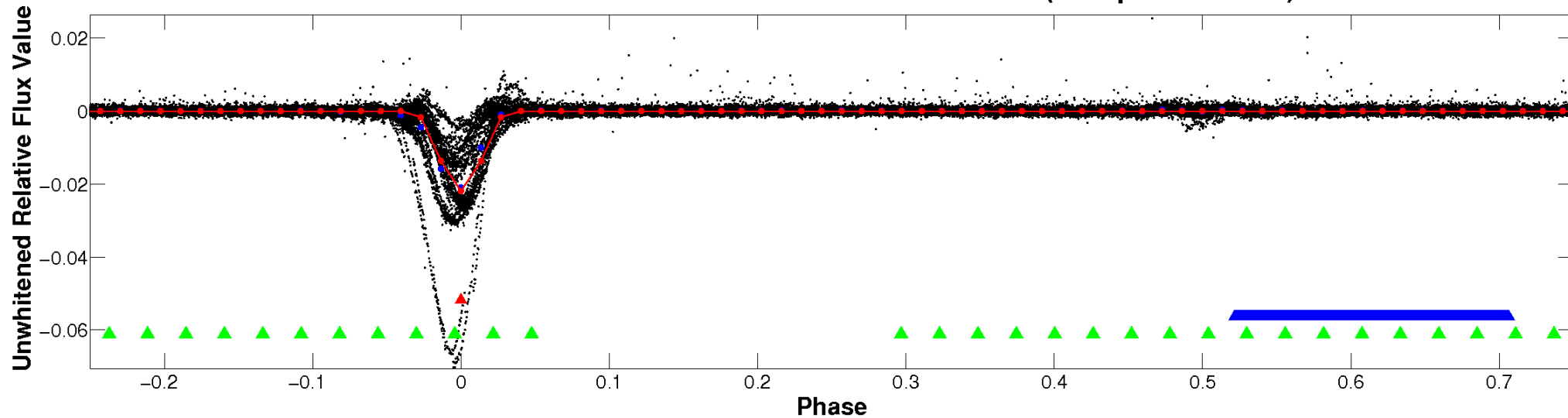
ALT Odd/Even

TCE 011350389-01

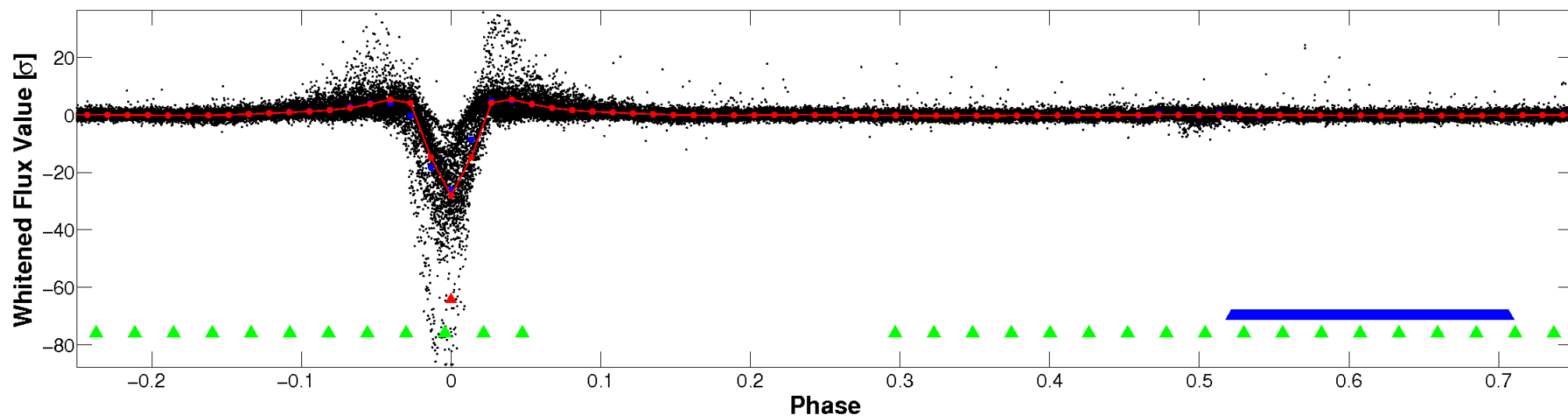


Non-Whitened Vs. Whitened Light Curve

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

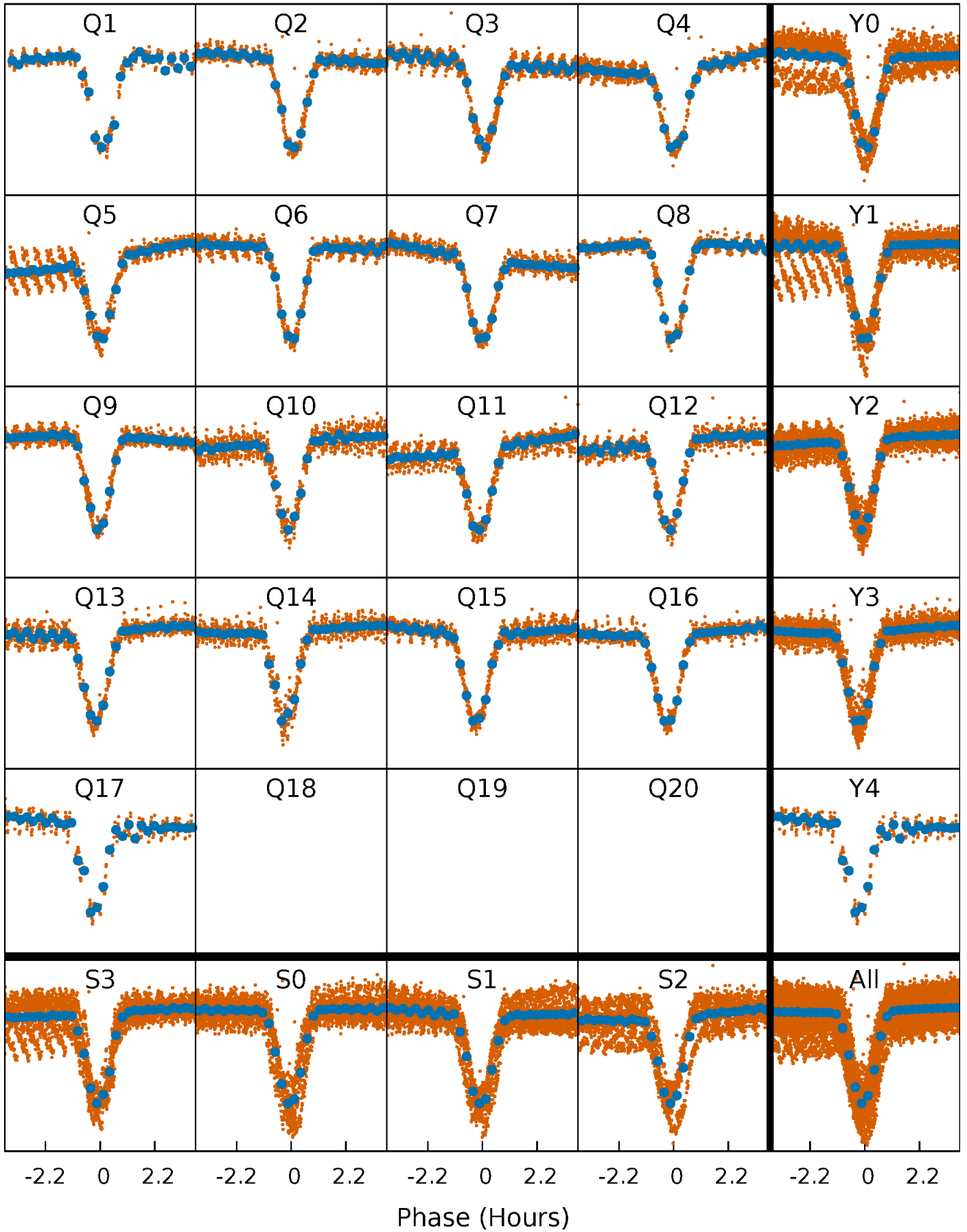


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



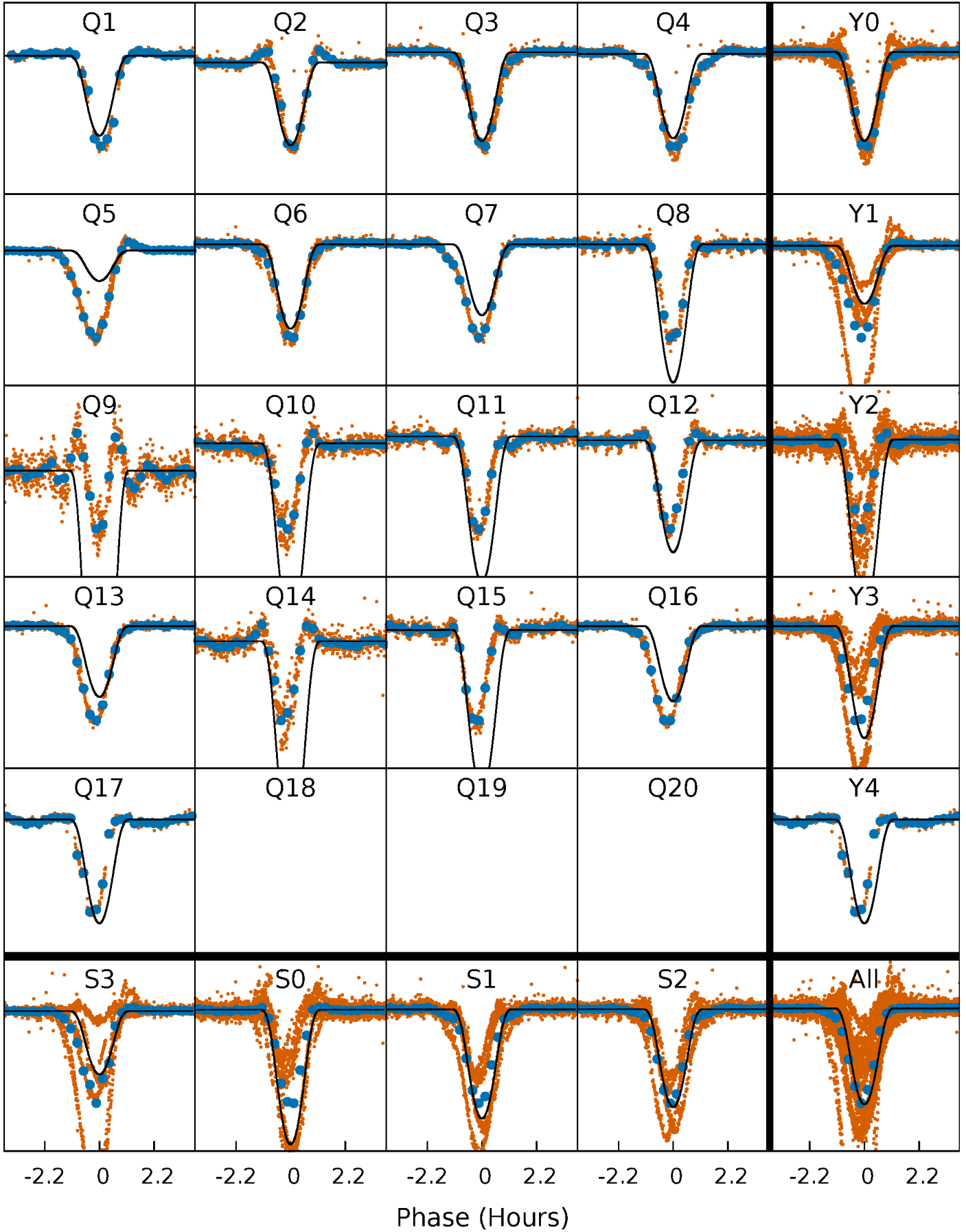
PDC Quarter-Phased Transit Curves

TCE 011350389-01 P= 1.512659 Days $T_0=132.021399$ (BKJD)



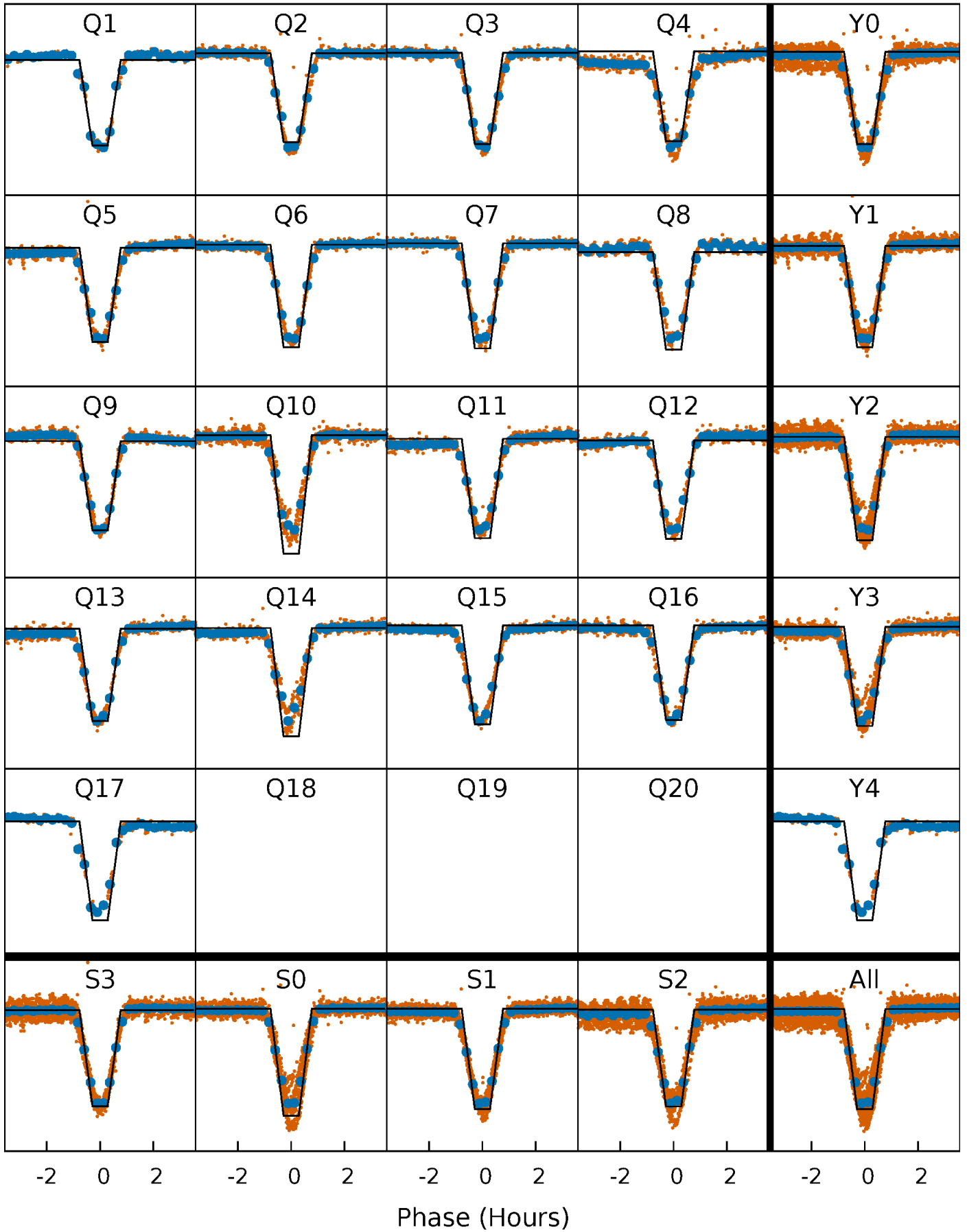
DV Quarter-Phased Transit Curves

TCE 011350389-01 P= 1.512659 Days $T_0=132.021399$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

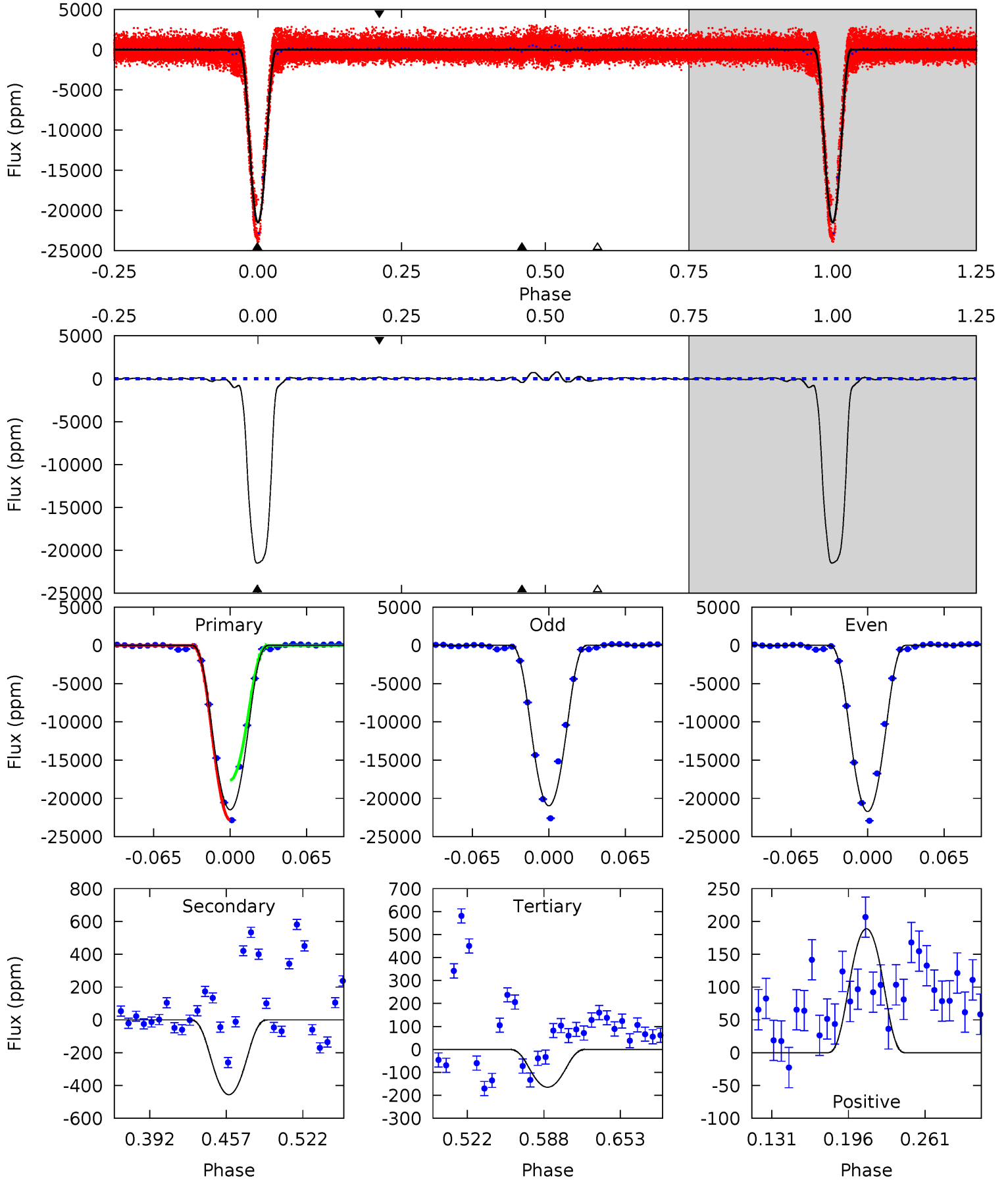
TCE 011350389-01 $P = 1.512647$ Days $T_0 = 132.024232$ (BKJD)



DV Model-Shift Uniqueness Test

011350389-01, P = 1.512659 Days, E = 130.508740 Days

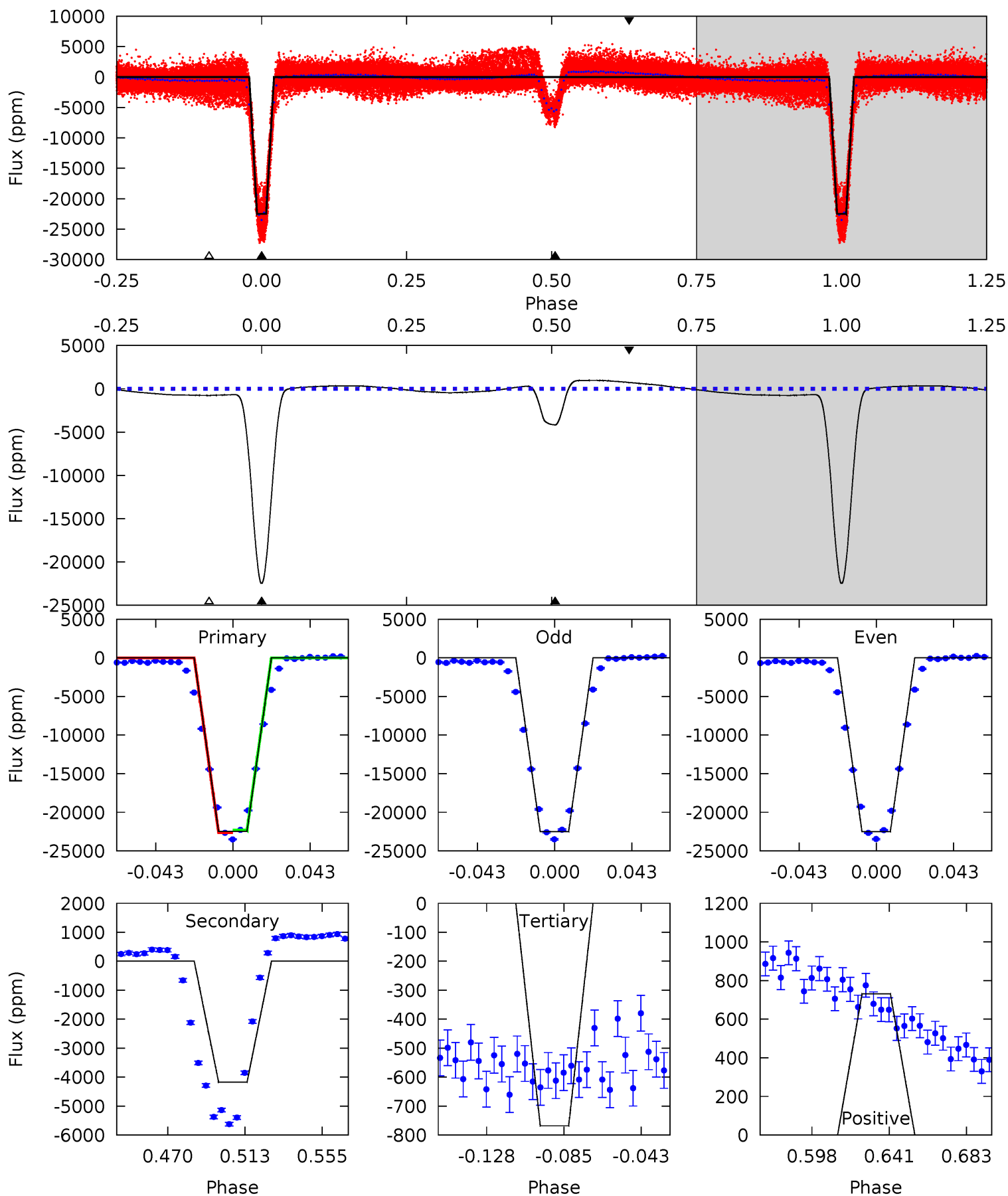
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1319	28.0	10.1	11.6	4.65	1.84	6.24	1309	1307	17.9	16.4	22.5	1.00	0.04	0



Alt Model-Shift Uniqueness Test

011350389-01, P = 1.512647 Days, E = 130.511585 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
960.7	178.3	32.8	31.2	4.74	2.03	21.1	927.8	929.4	145.5	147.1	0.01	0.99	0.04	6.71



Stellar Parameters For KIC 011350389

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5258^{+158}_{-142}	$4.508^{+0.090}_{-0.090}$	$-0.180^{+0.300}_{-0.300}$	$0.811^{+0.112}_{-0.091}$	$0.772^{+0.109}_{-0.062}$	$2.039^{+0.741}_{-0.543}$
	+3%/-3%	+2%/-2%	+167%/-167%	+14%/-11%	+14%/-8%	+36%/-27%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011350389-01 / KOI 7438.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-456 ± 16	$16.77^{+1.64}_{-1.41}$	1899^{+84}_{-81}	2316^{+82}_{-113}	$0.504^{+0.090}_{-0.082}$
Alt.	-4173 ± 23	$13.83^{+1.39}_{-1.23}$	1899^{+90}_{-82}	3732^{+117}_{-107}	$6.767^{+1.379}_{-1.041}$

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 $A_{obs} \gg 1.0$

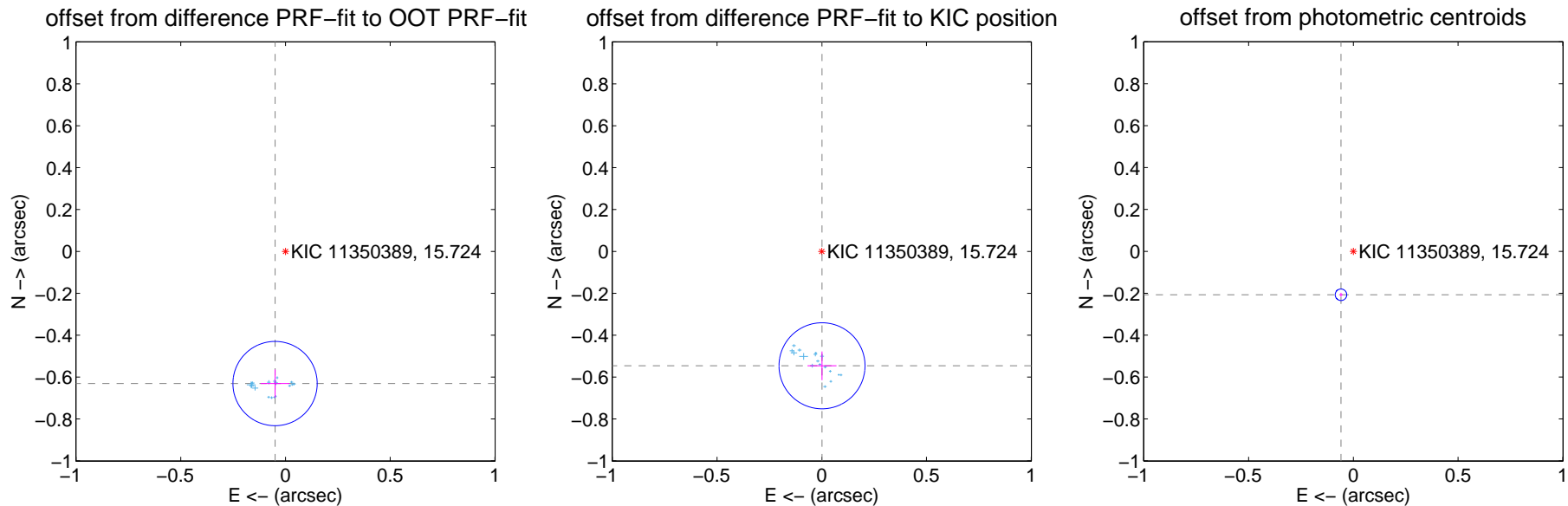
DV Centroid Data

Supplemental centroid analysis for 011350389-01. Kepler magnitude: 15.72. Transit SNR 671.91

There are 17 quarters with good PRF difference image offsets

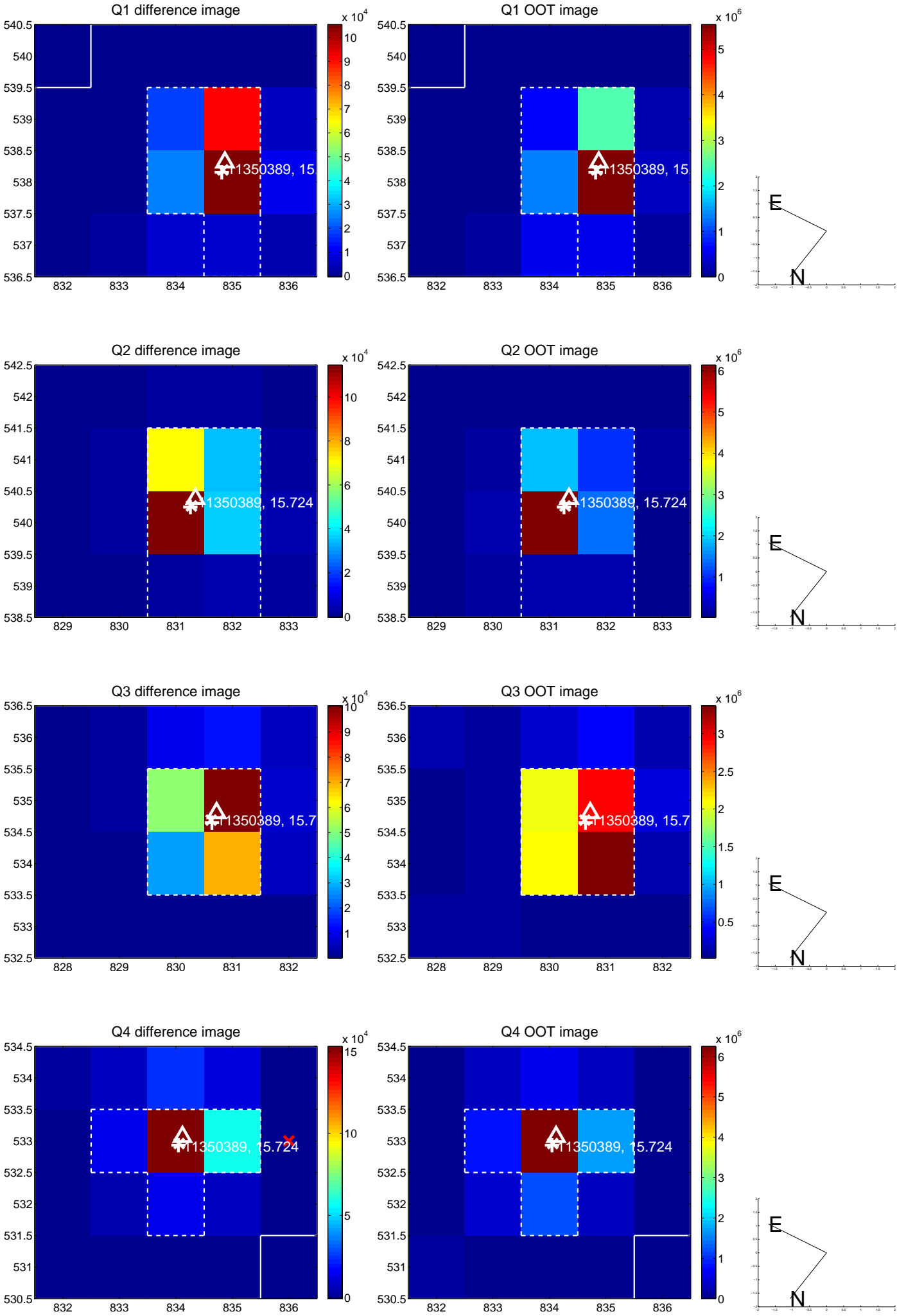
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.633 ± 0.067	9.44	0.050 ± 0.068	-0.631 ± 0.067
PRF-fit source offset from KIC position	0.546 ± 0.068	7.98	-0.001 ± 0.069	-0.546 ± 0.068
photometric centroid source offset	0.22 ± 0.01	23.46	0.06 ± 0.01	-0.21 ± 0.01

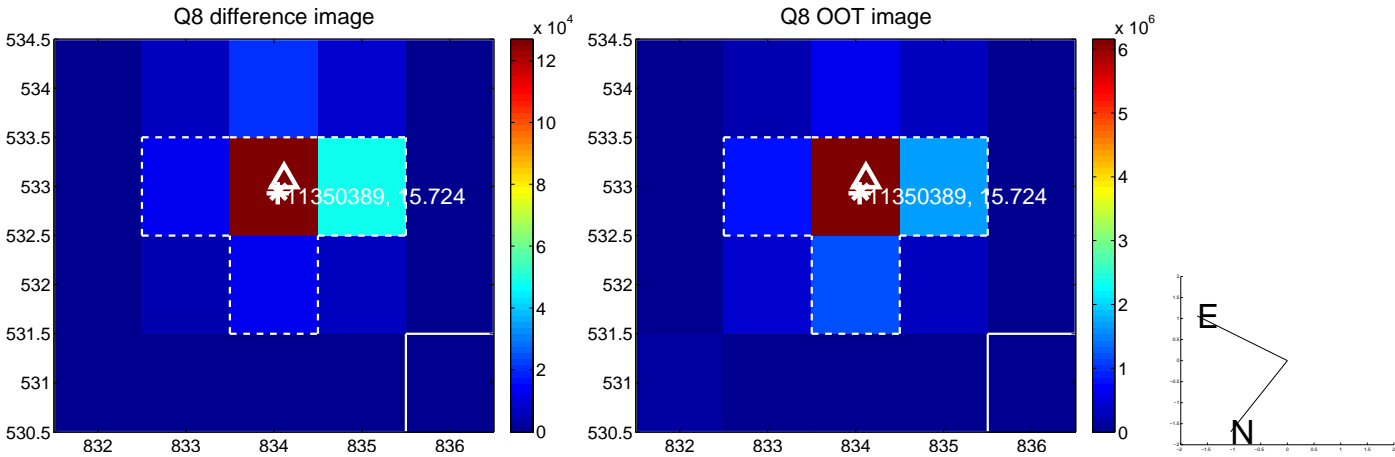
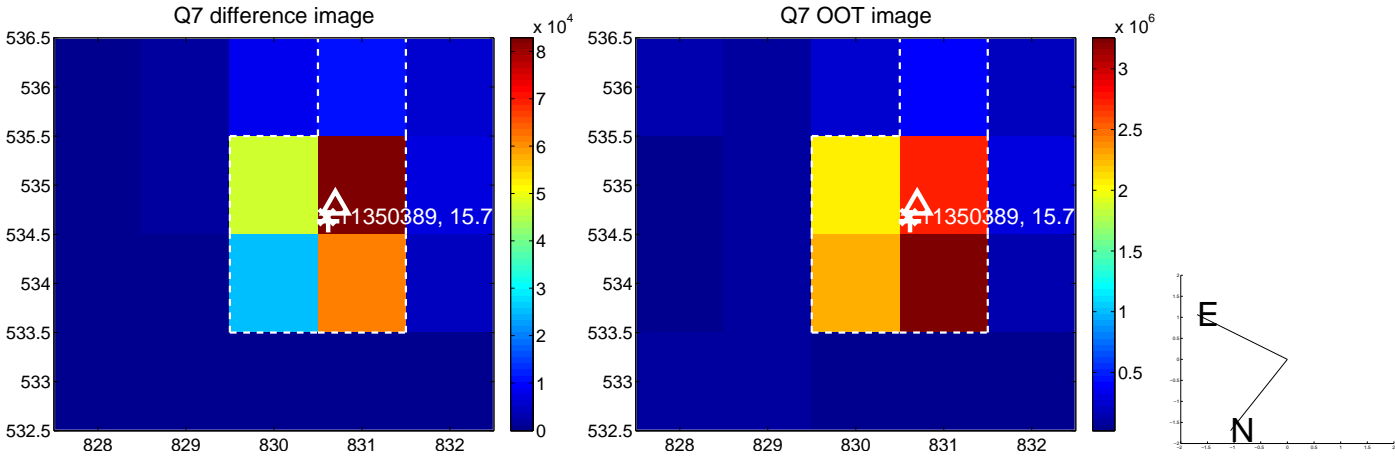
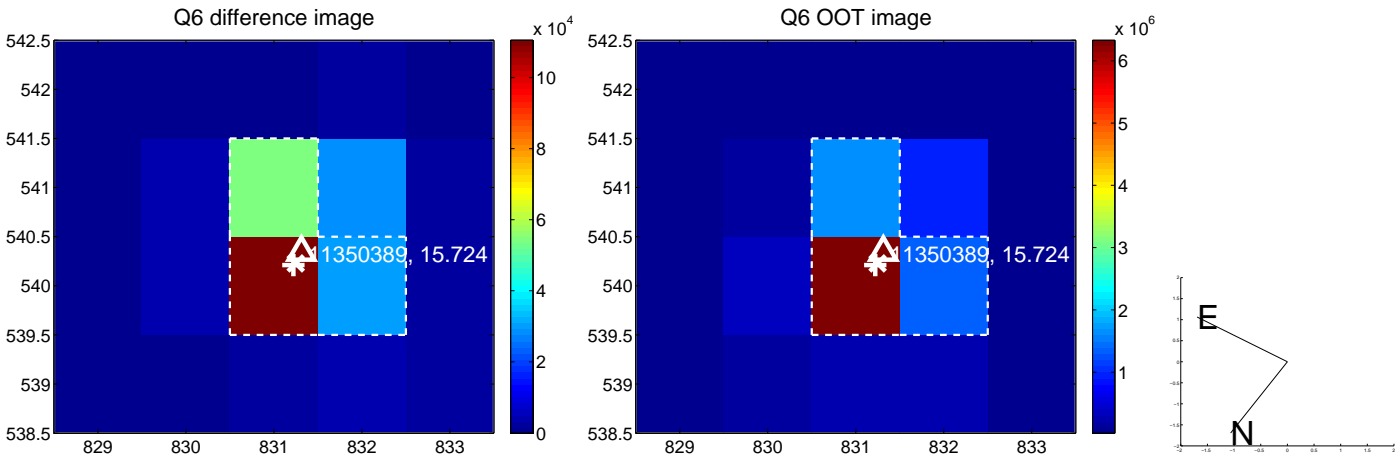
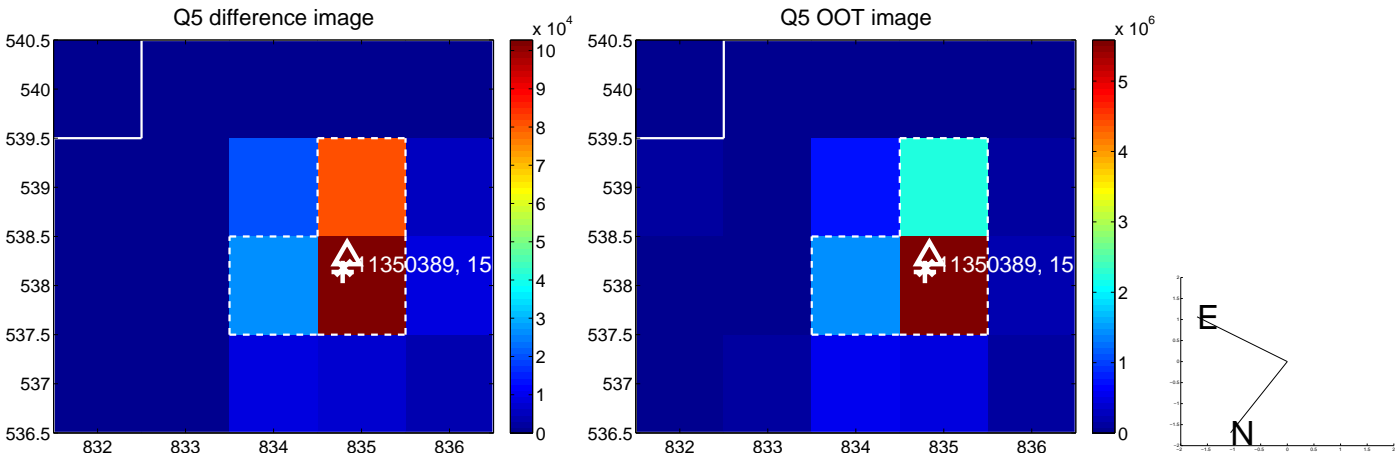


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

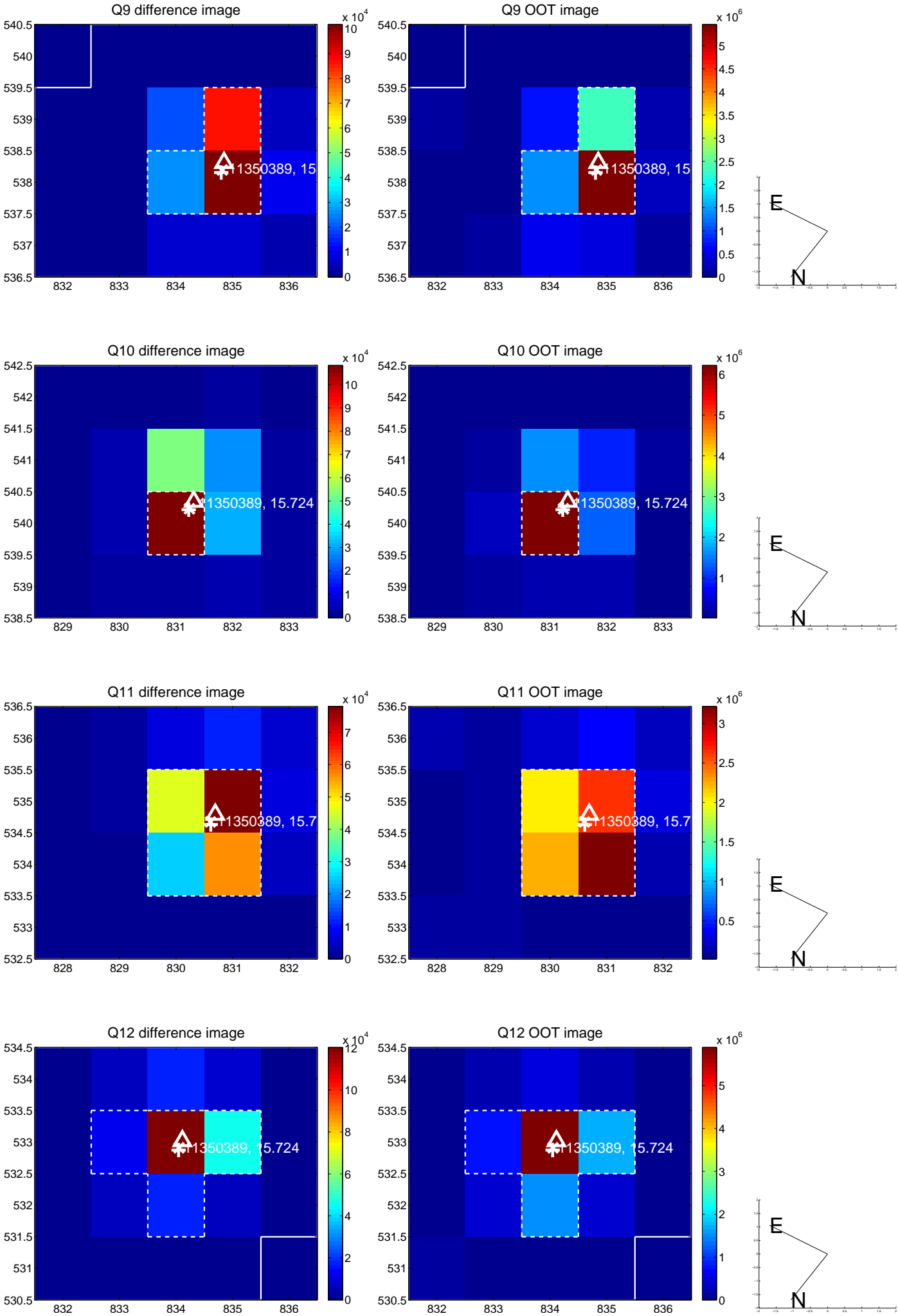
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



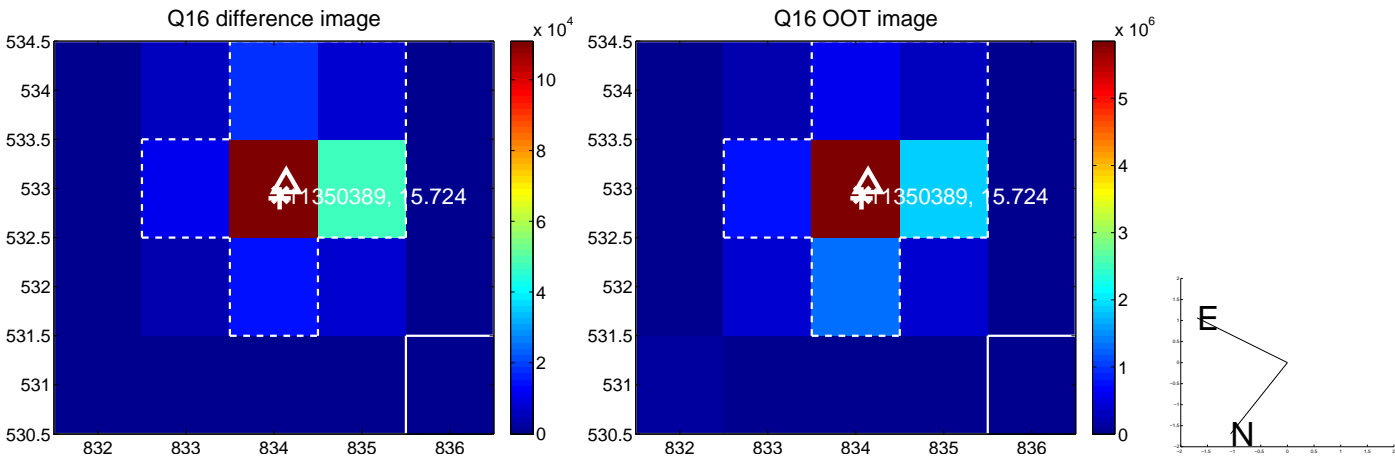
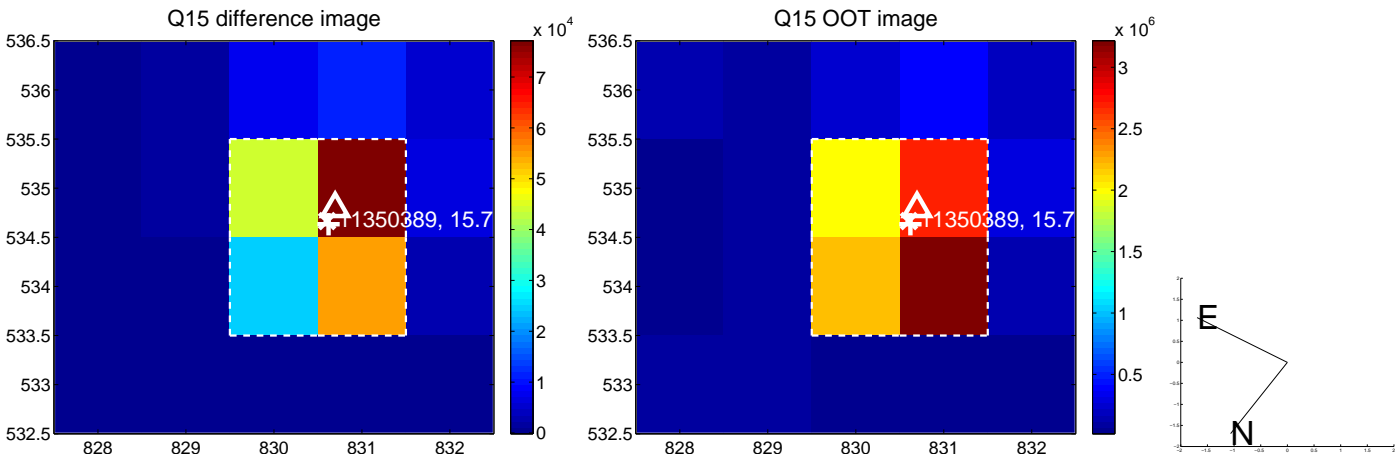
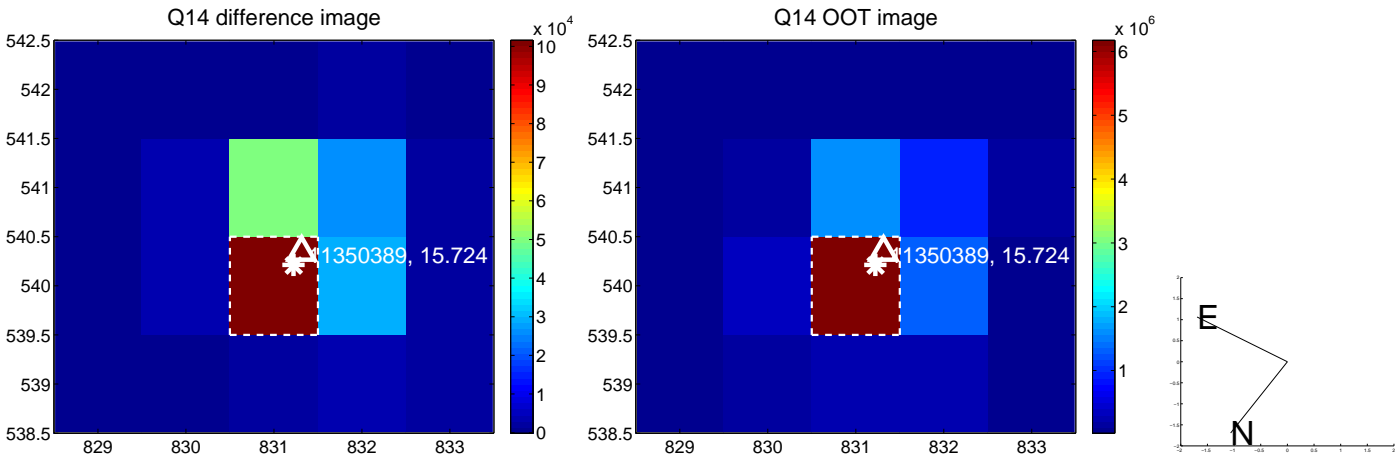
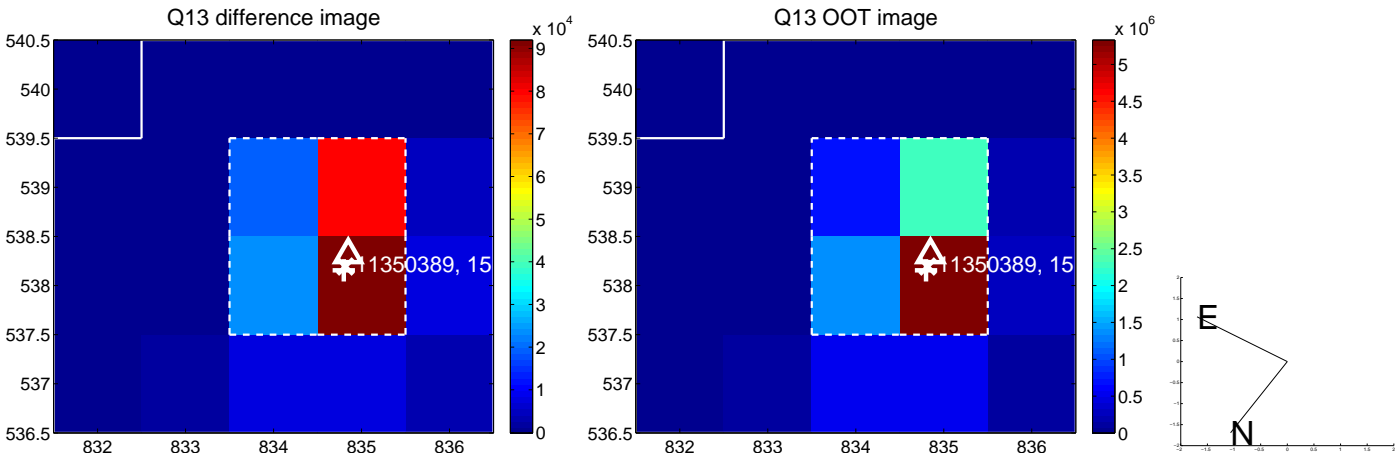
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



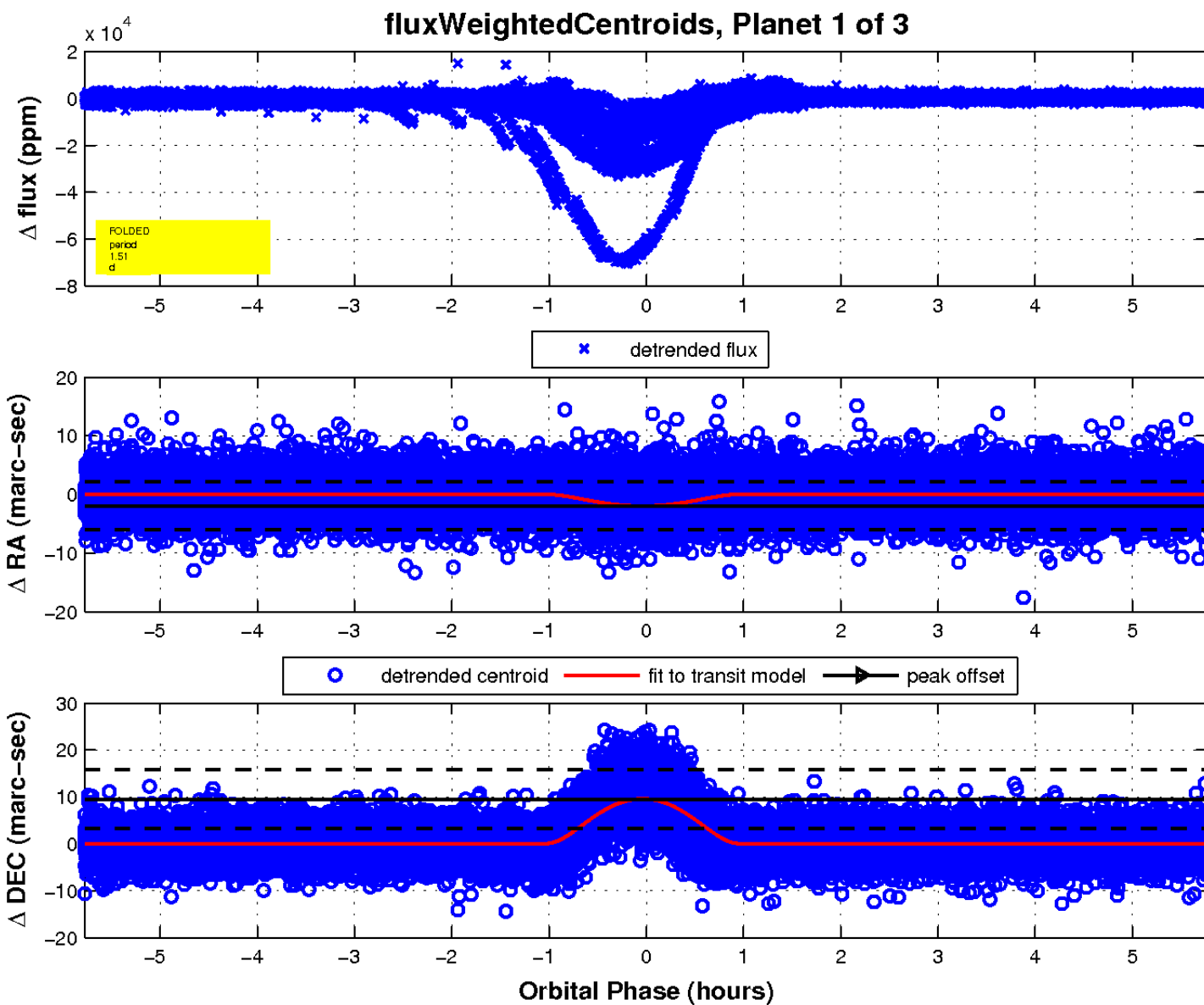
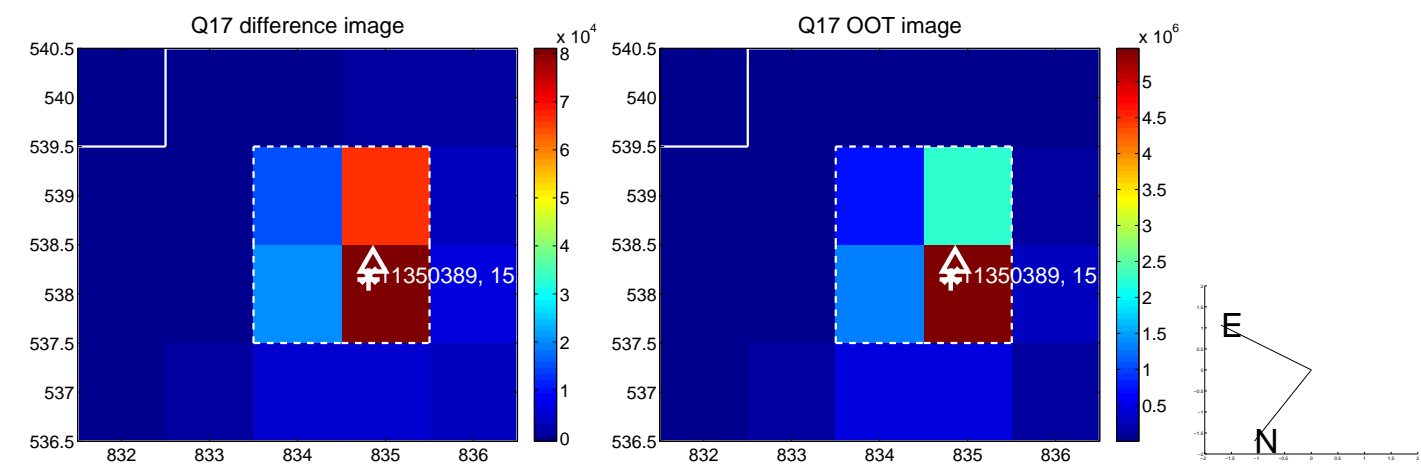
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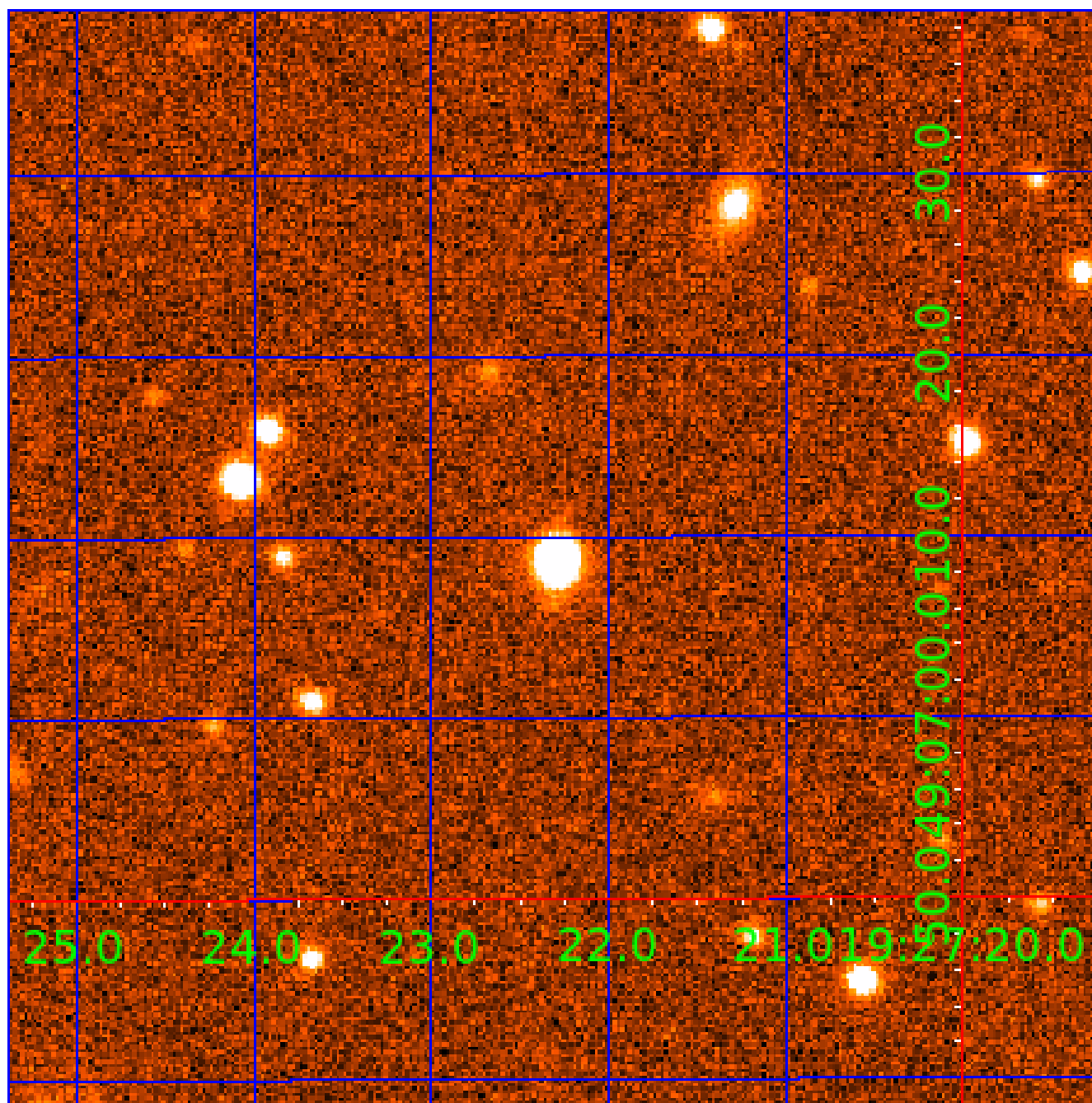


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011350389

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})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350389-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_DV—DEEP_V_SHAPED—HAS_SEC_TCE
011350389-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
011350389-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES

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.

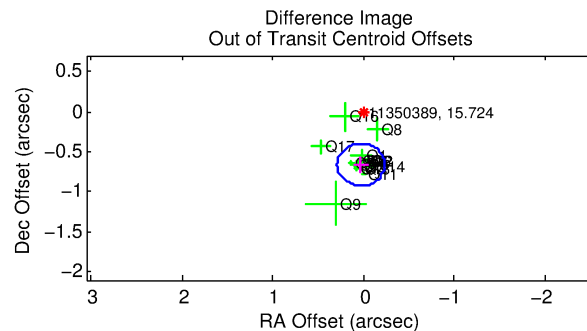
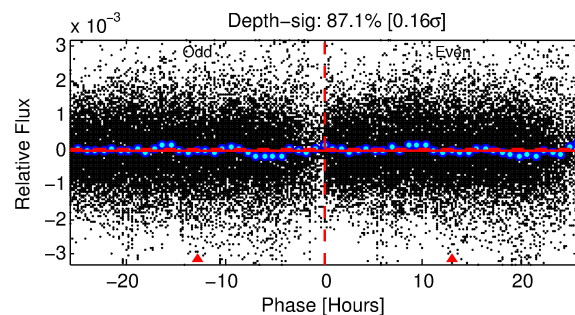
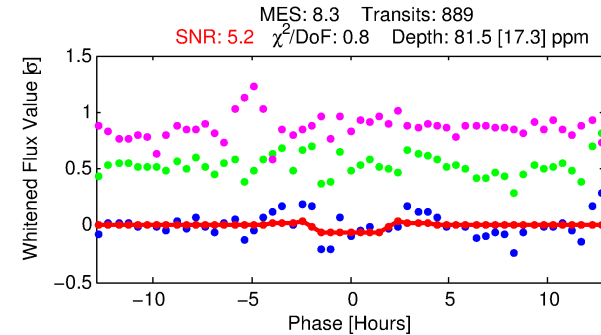
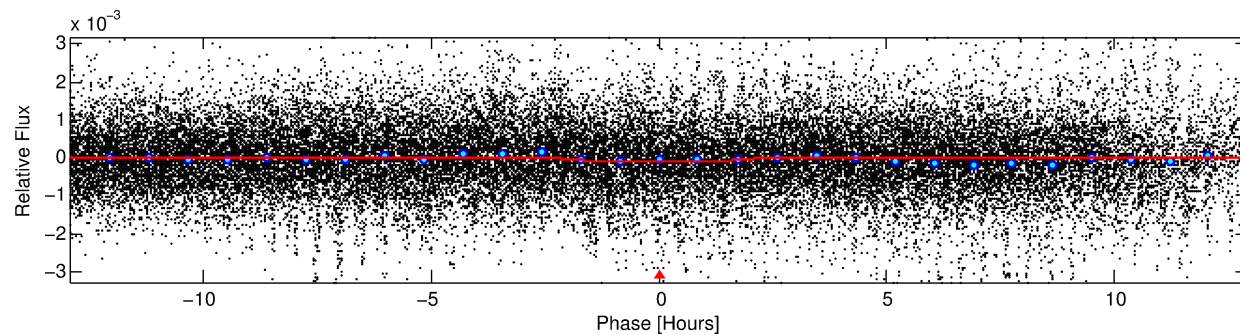
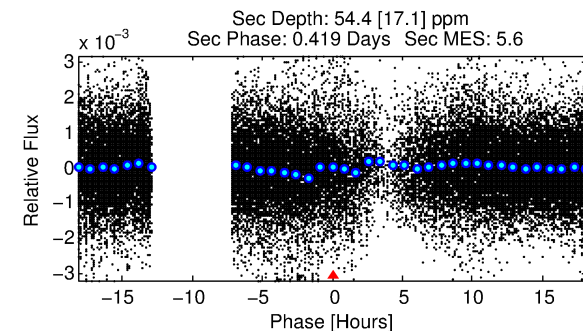
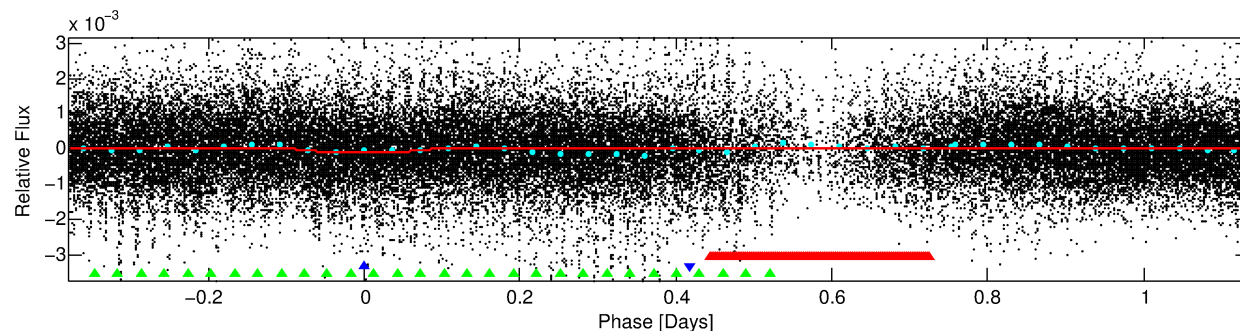
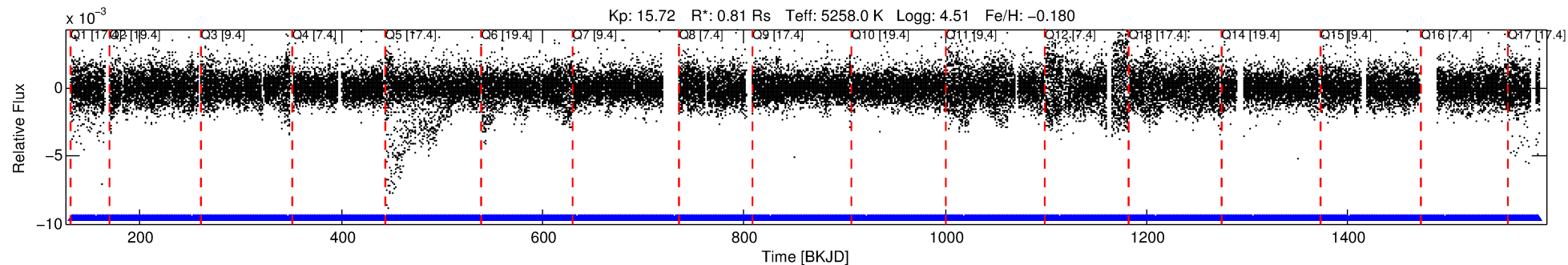
Ephemeris Match Information For 011350389-02

No Significant Match Found

DV One-Page Summary

KIC: 11350389 Candidate: 2 of 3 Period: 1.512 d
KOI: K07438 Corr: No Ephemeris Match

Kp: 15.72 R*: 0.81 Rs Teff: 5258.0 K Logg: 4.51 Fe/H: -0.180



DV Fit Results:

Period = 1.51237 [0.00002] d
Epoch = 133.0903 [0.0060] BKJD
Rp/R* = 0.0103 [0.0048]
a/R* = 1.43 [1.48]
b = 0.93 [0.30]
Seff = 804.11 [164.81]
Teff = 1358 [70] K
Rp = 0.92 [0.44] Re
a = 0.0237 [0.0027] AU
Ag = 19.99 [19.69] [0.96σ]
Teffp = 4439 [1086] K [2.83σ]

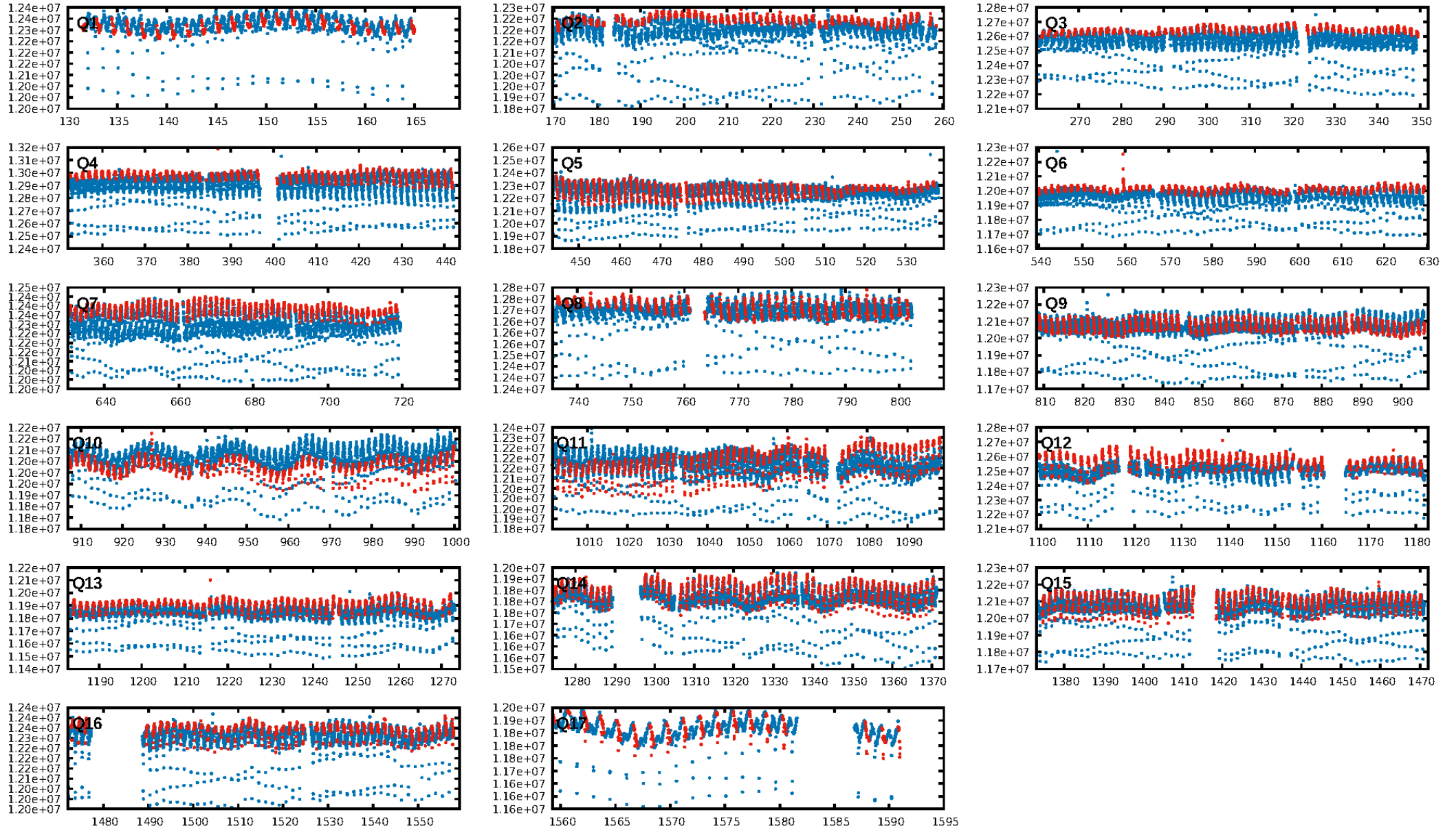
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [848/848]
GhostDiagnostic-chr: 1.465
Centroid-sig: 75.9%
Centroid-so: 0.547 arcsec [0.41σ]
OotOffset-rm: 0.663 arcsec [7.56σ]
KicOffset-rm: 0.554 arcsec [6.20σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.31 [5/16]
DiffImageOverlap-fno: 1.00 [17/17]

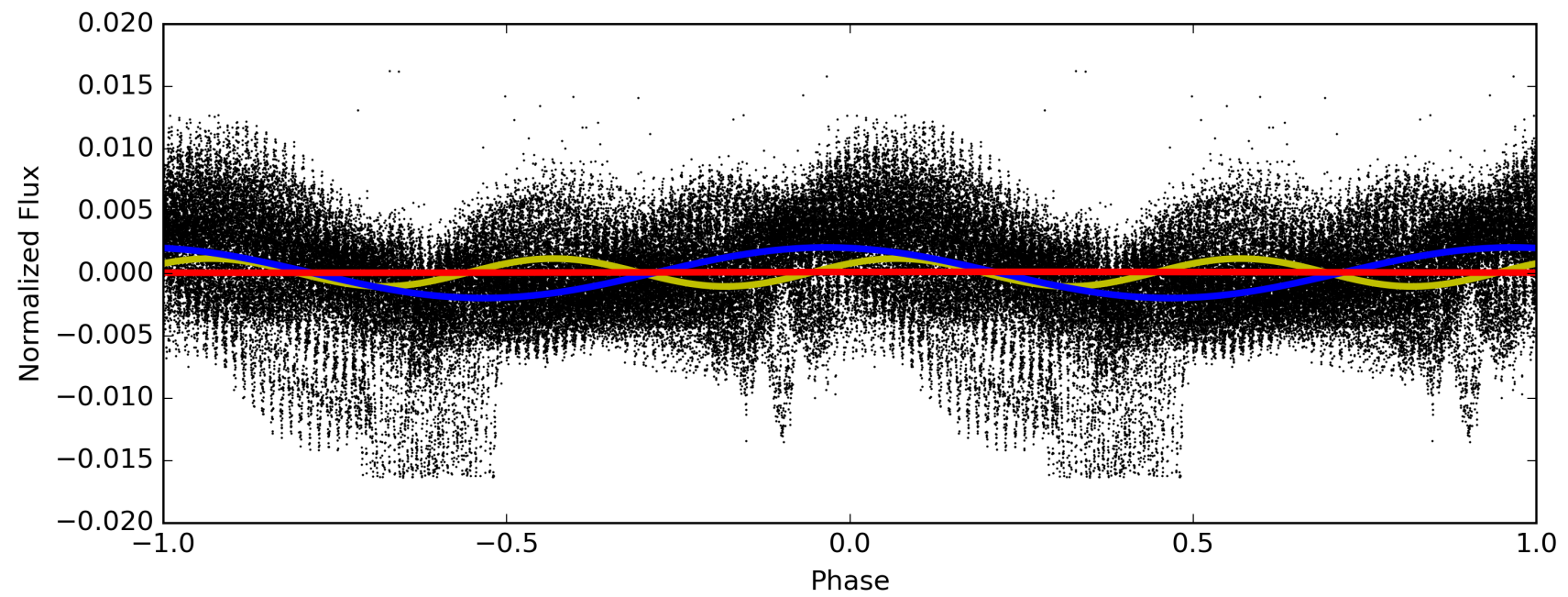
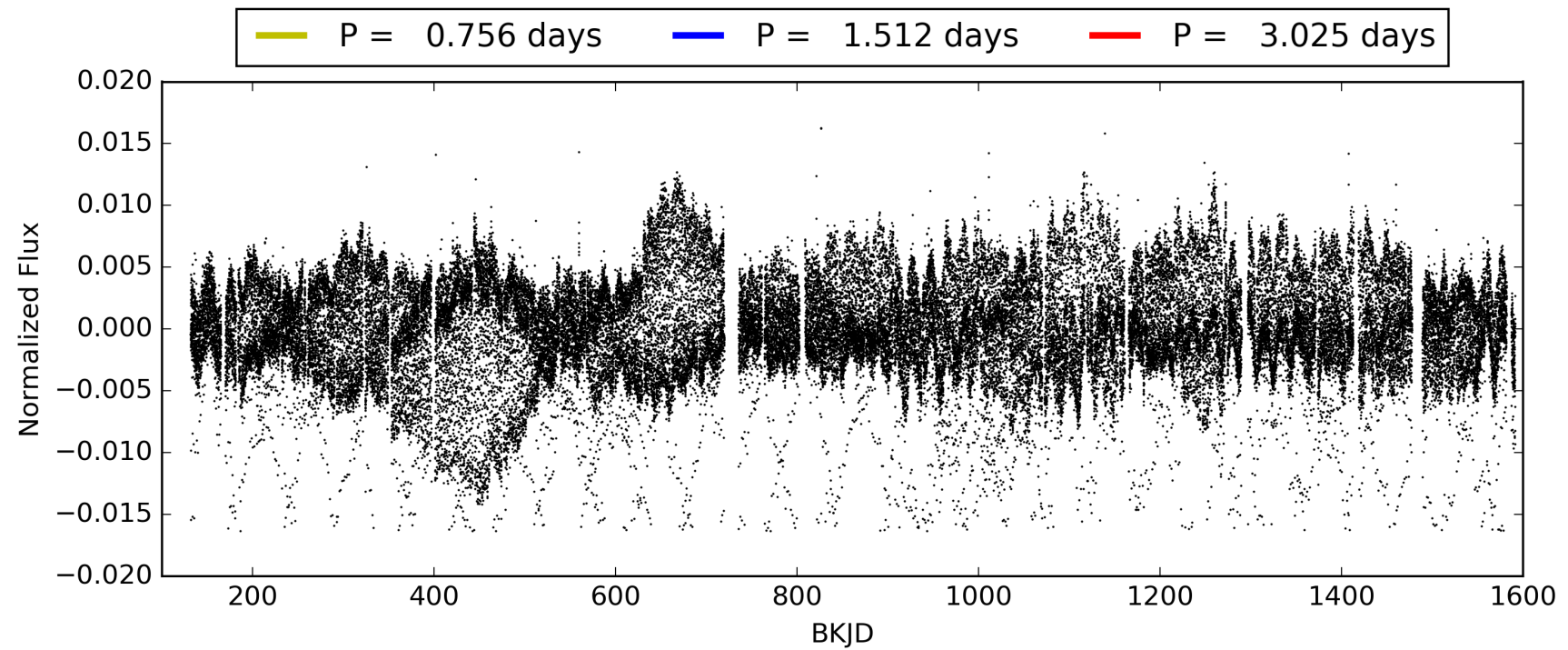
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:29:29 Z

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

TCE 011350389-02, PDC Light Curves

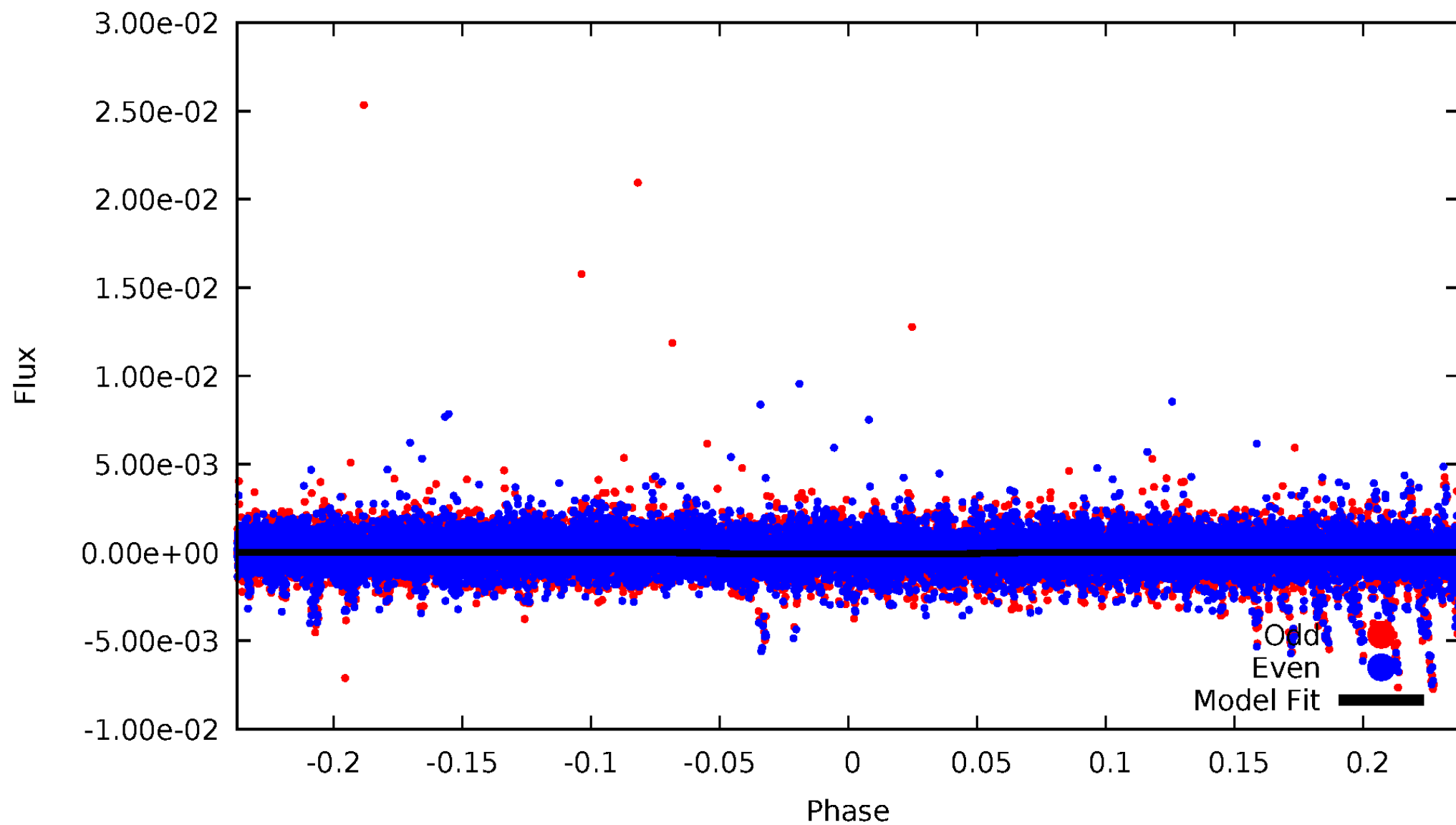


TCE 011350389-02



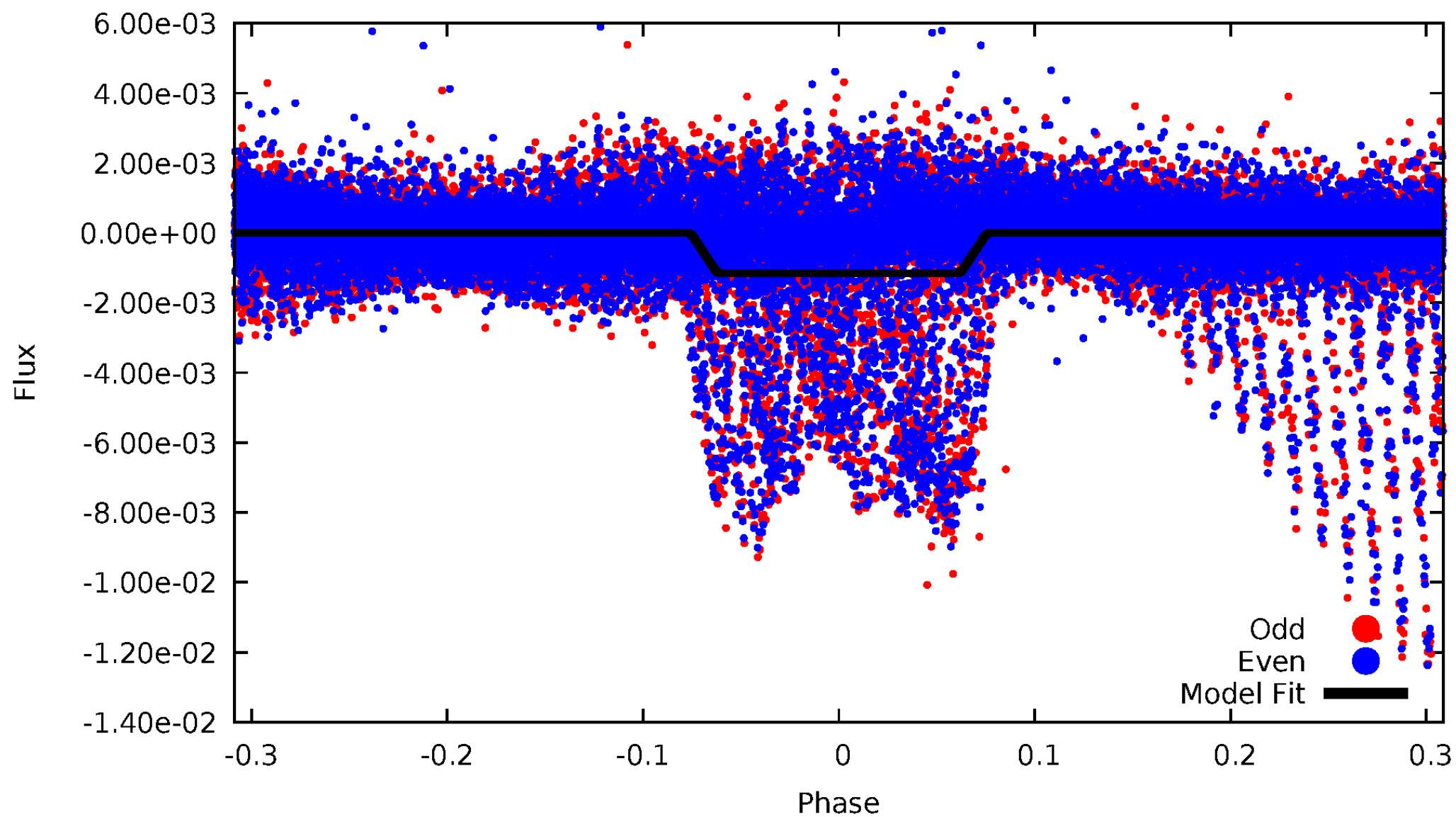
DV Odd/Even

TCE 011350389-02



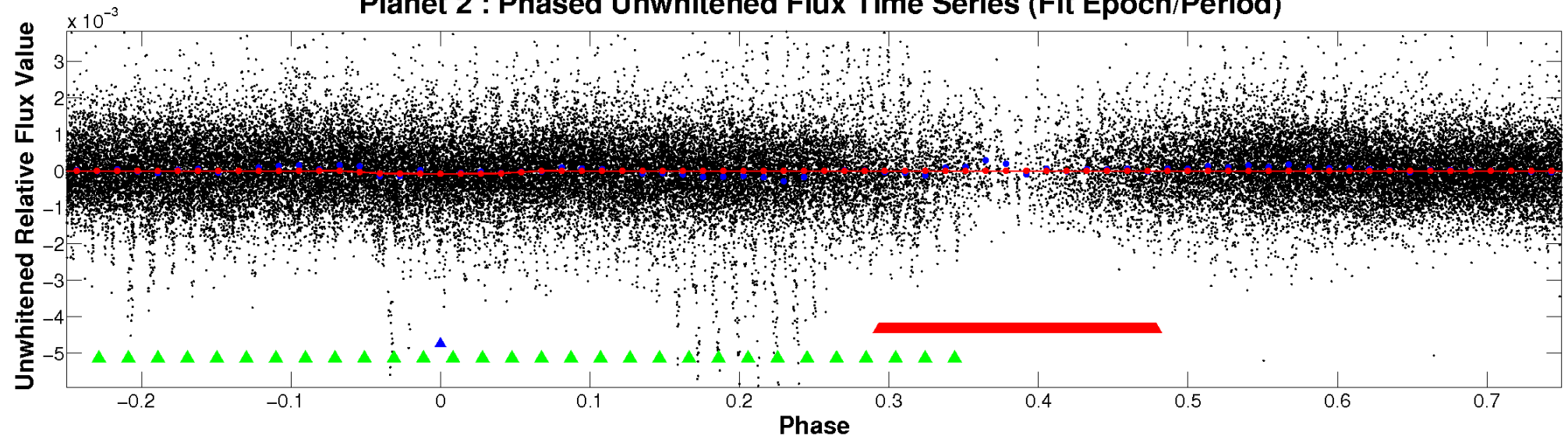
ALT Odd/Even

TCE 011350389-02

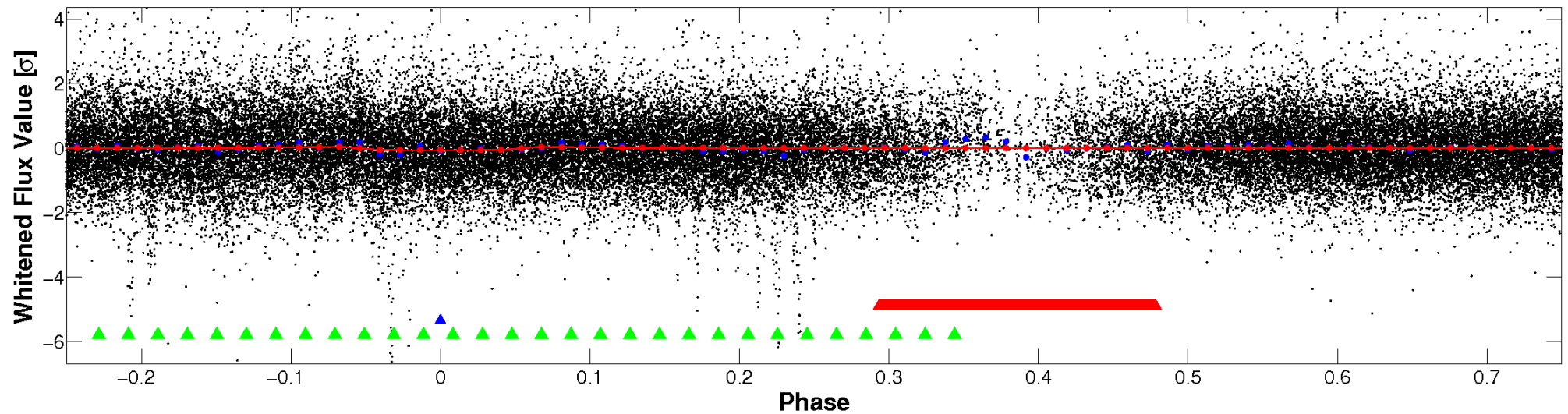


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

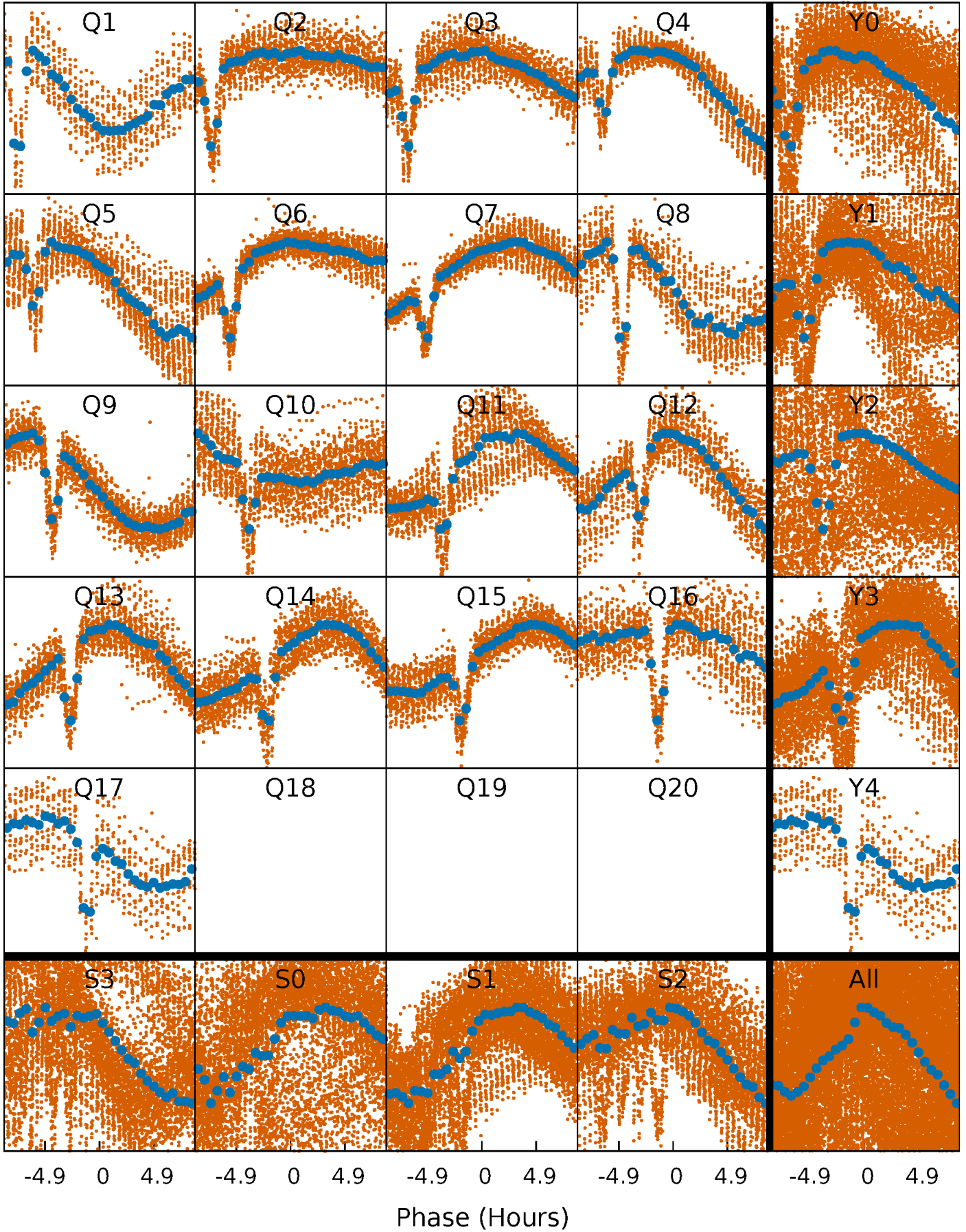


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



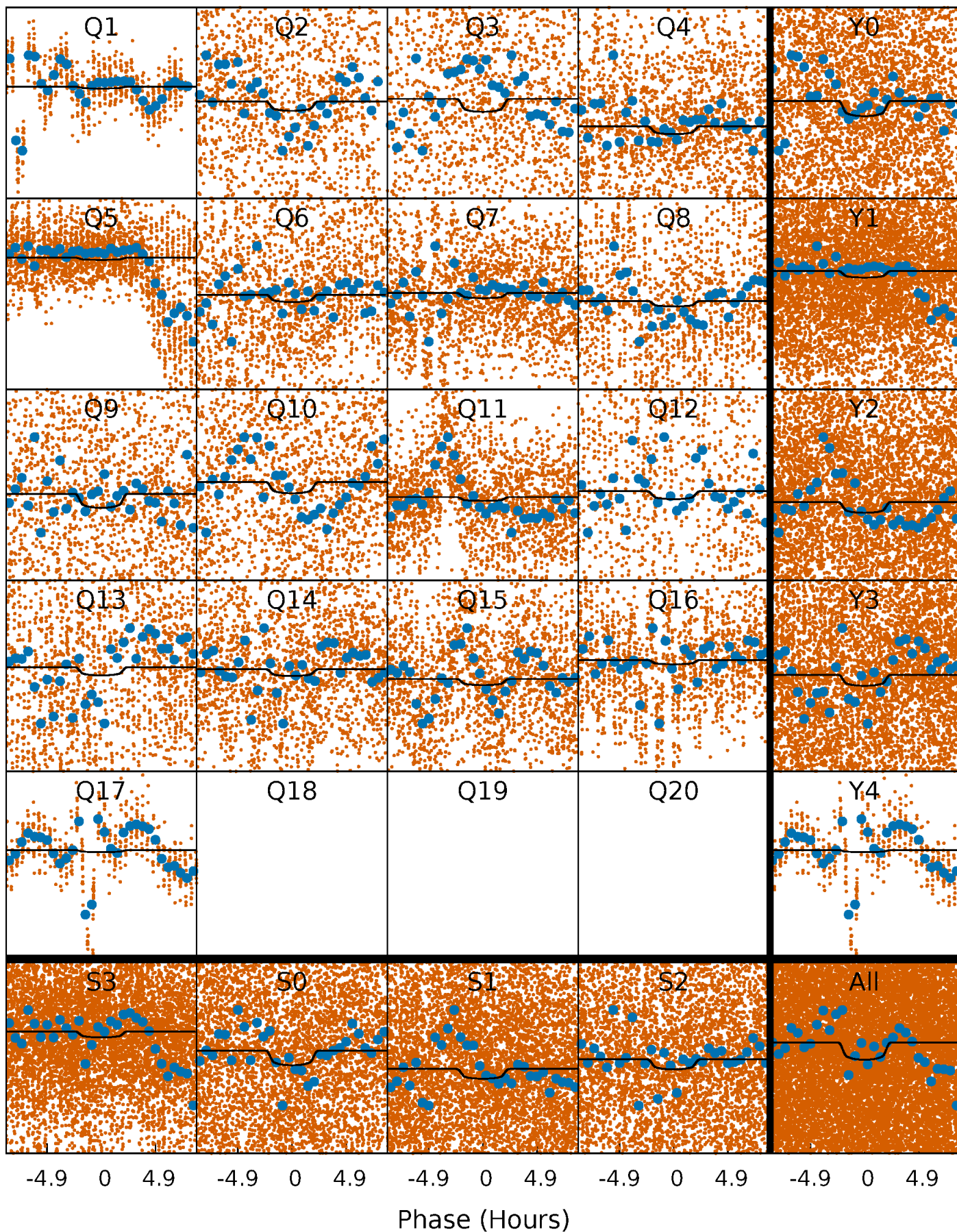
PDC Quarter-Phased Transit Curves

TCE 011350389-02 P= 1.512368 Days $T_0=133.090330$ (BKJD)



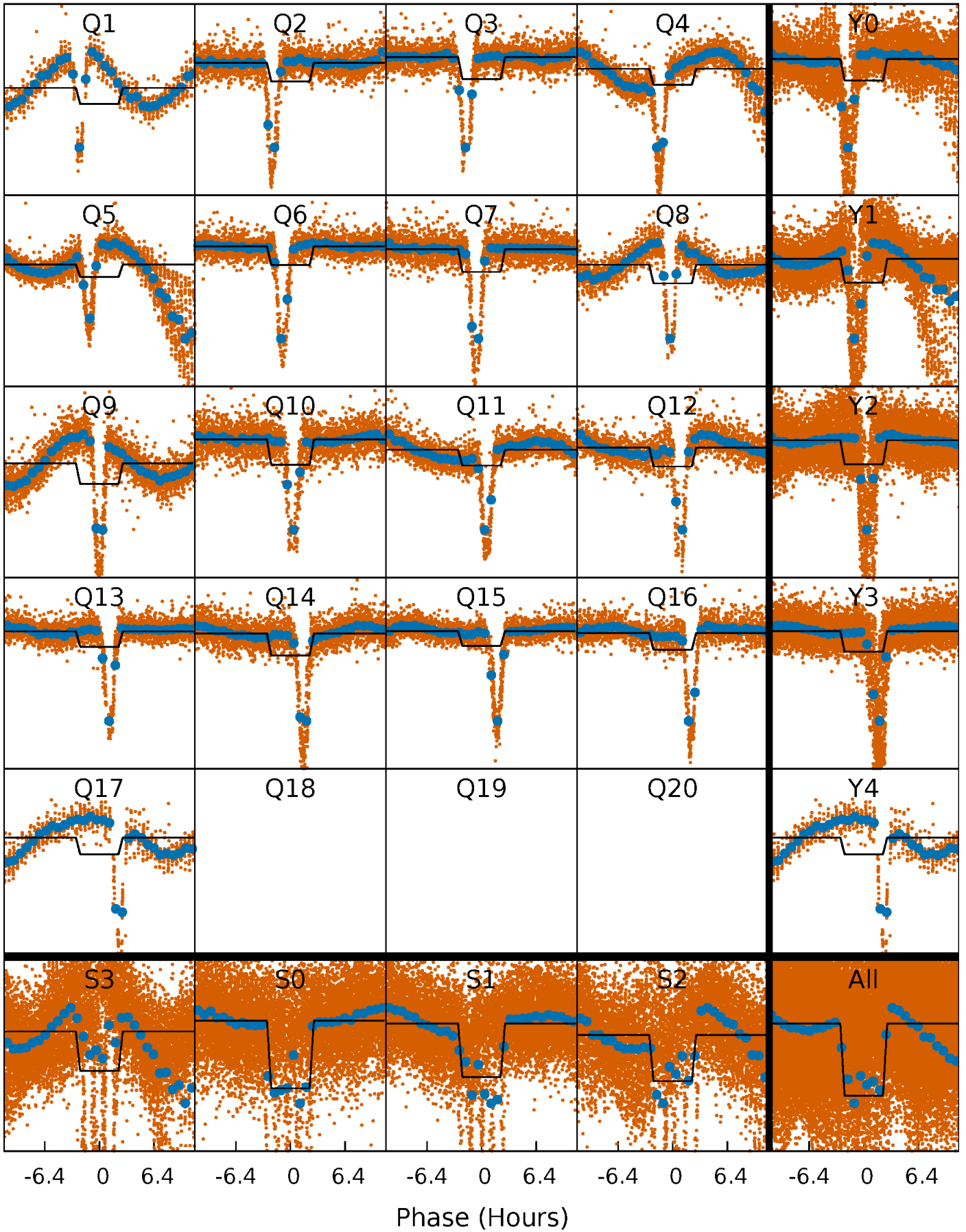
DV Quarter-Phased Transit Curves

TCE 011350389-02 P= 1.512368 Days $T_0=133.090330$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

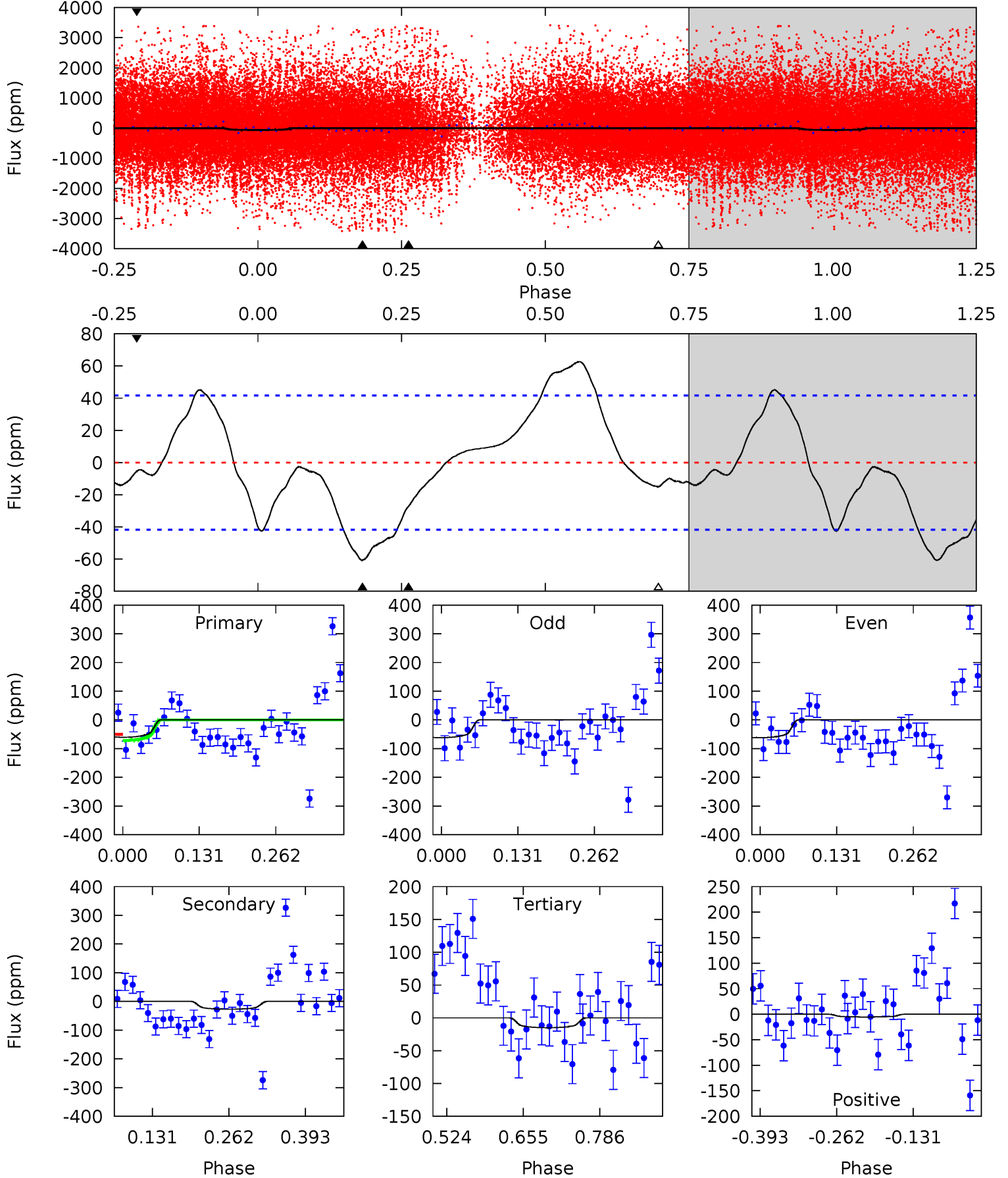
TCE 011350389-02 P= 1.512440 Days $T_0=132.880377$ (BKJD)



DV Model-Shift Uniqueness Test

011350389-02, P = 1.512368 Days, E = 130.065594 Days

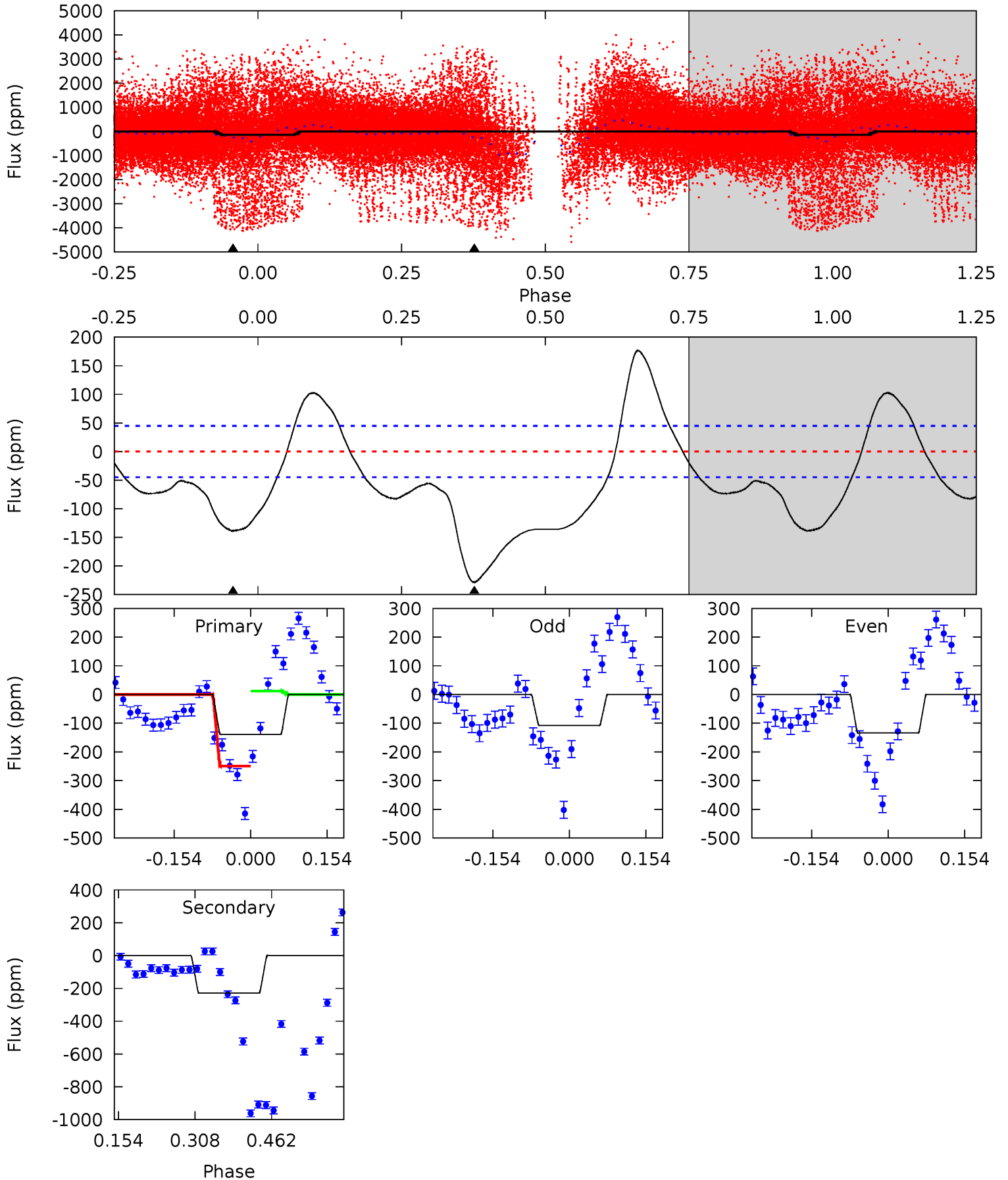
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.55	2.94	1.62	-0.59	4.51	1.51	3.02	4.93	7.14	1.32	3.52	0.01	1.54	0.51	1.14



Alt Model-Shift Uniqueness Test

011350389-02, P = 1.512440 Days, E = 131.367937 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	22.8	0	0	4.47	1.43	7.96	13.8	13.8	22.8	22.8	1.32	0.93	0.44	0



Stellar Parameters For KIC 011350389

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5258^{+158}_{-142}	$4.508^{+0.090}_{-0.090}$	$-0.180^{+0.300}_{-0.300}$	$0.811^{+0.112}_{-0.091}$	$0.772^{+0.109}_{-0.062}$	$2.039^{+0.741}_{-0.543}$
	+3%/-3%	+2%/-2%	+167%/-167%	+14%/-11%	+14%/-8%	+36%/-27%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011350389-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27 ± 9	$0.93^{+0.42}_{-0.43}$	1897^{+88}_{-79}	3939^{+1133}_{-529}	$9.225^{+23.935}_{-5.262}$
Alt.	-228 ± 10	$3.01^{+0.50}_{-0.45}$	1900^{+87}_{-83}	3821^{+233}_{-195}	$7.850^{+3.001}_{-2.025}$

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

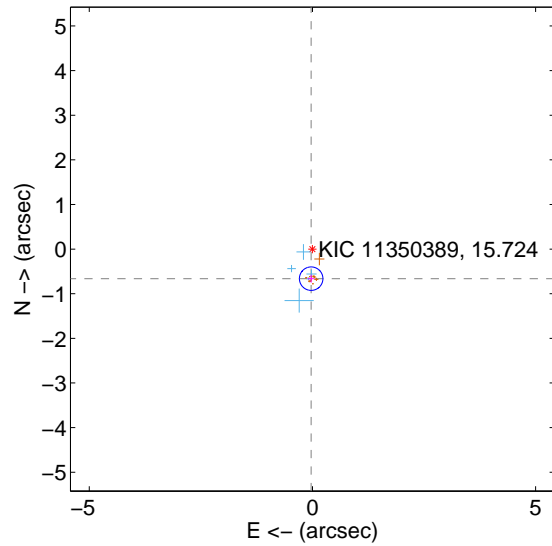
Supplemental centroid analysis for 011350389-02. Kepler magnitude: 15.72. Transit SNR 5.25

There are 5 quarters with good PRF difference image offsets

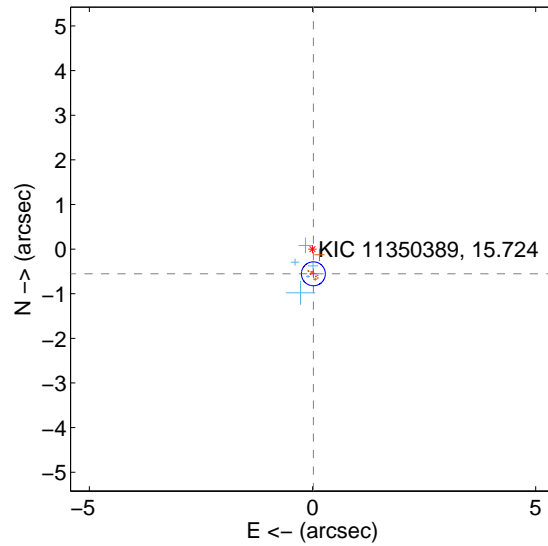
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.663 ± 0.088	7.56	0.029 ± 0.075	-0.662 ± 0.088
PRF-fit source offset from KIC position	0.554 ± 0.089	6.20	-0.019 ± 0.075	-0.554 ± 0.089
photometric centroid source offset	0.55 ± 1.32	0.41	0.48 ± 1.27	-0.27 ± 1.48

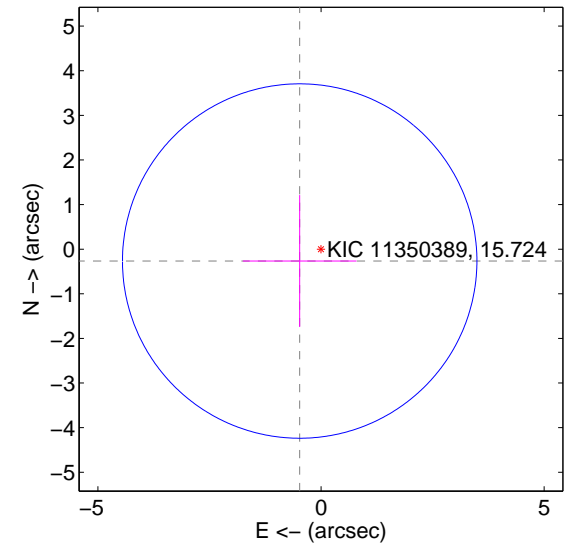
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

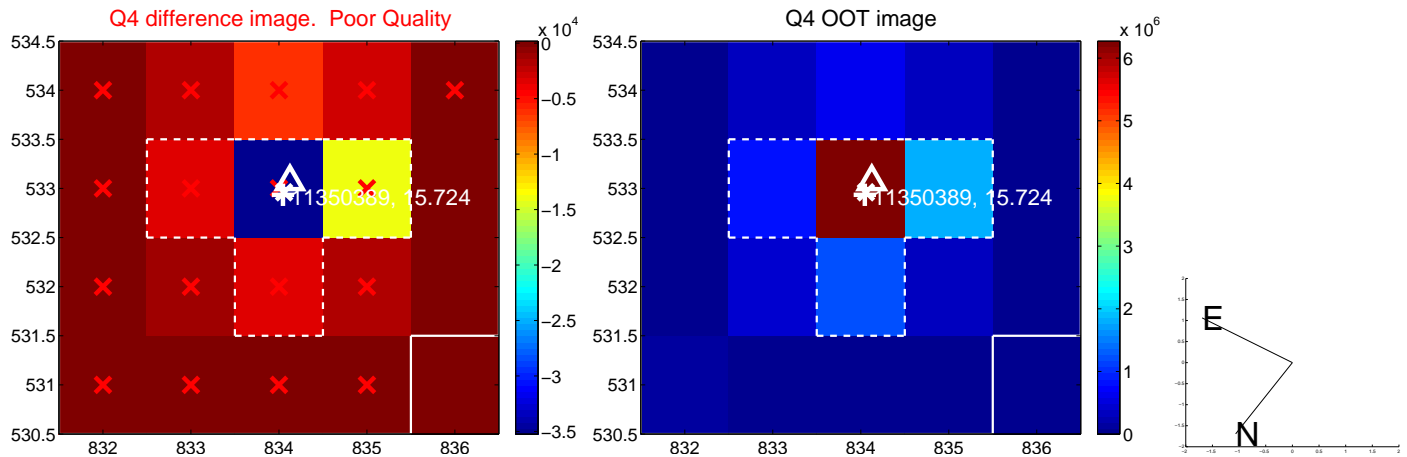
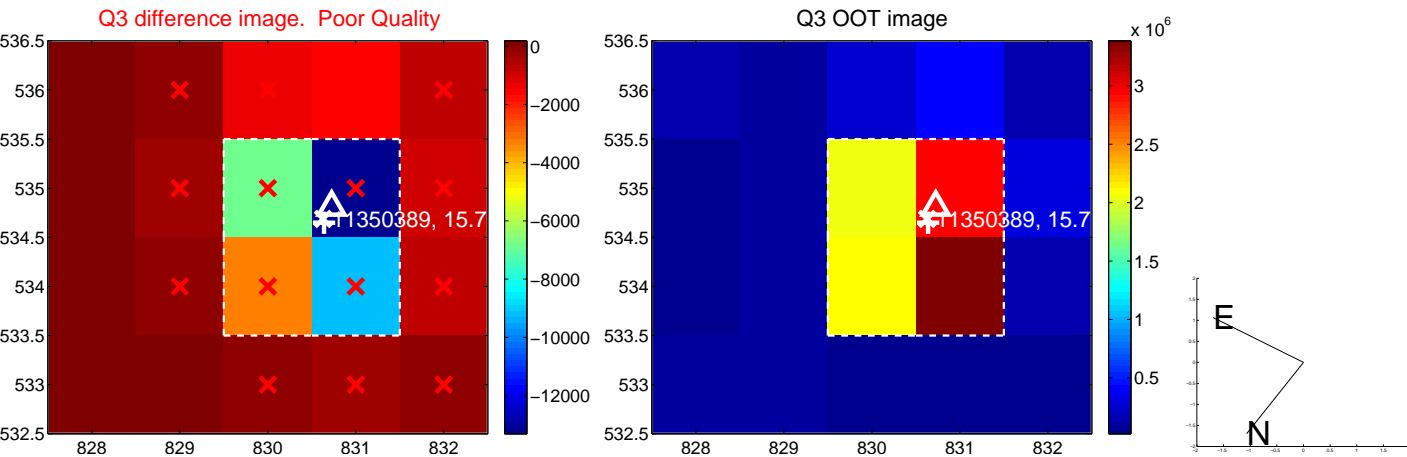
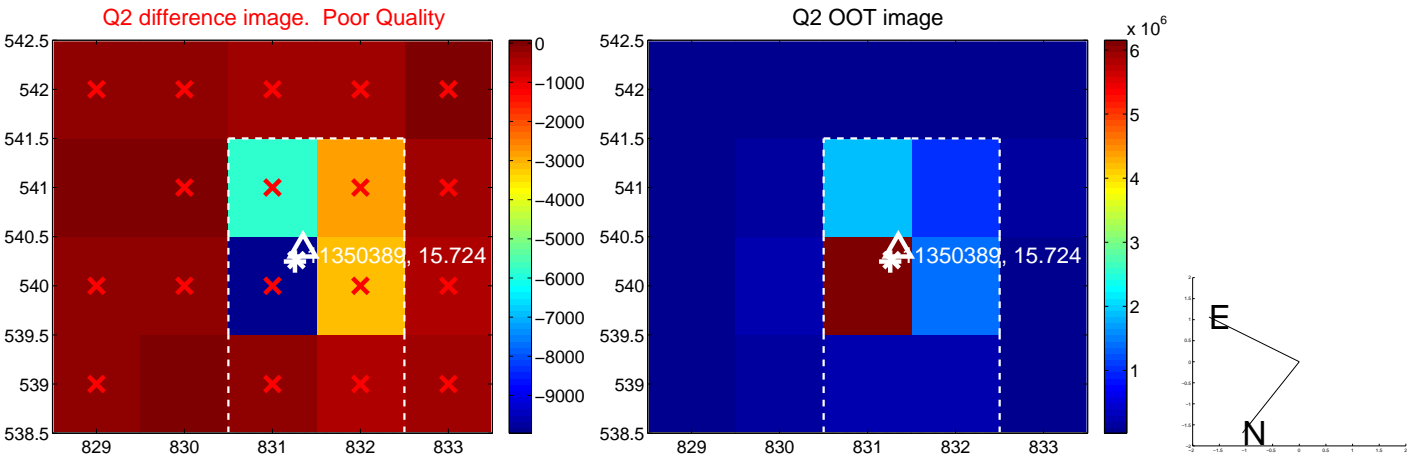
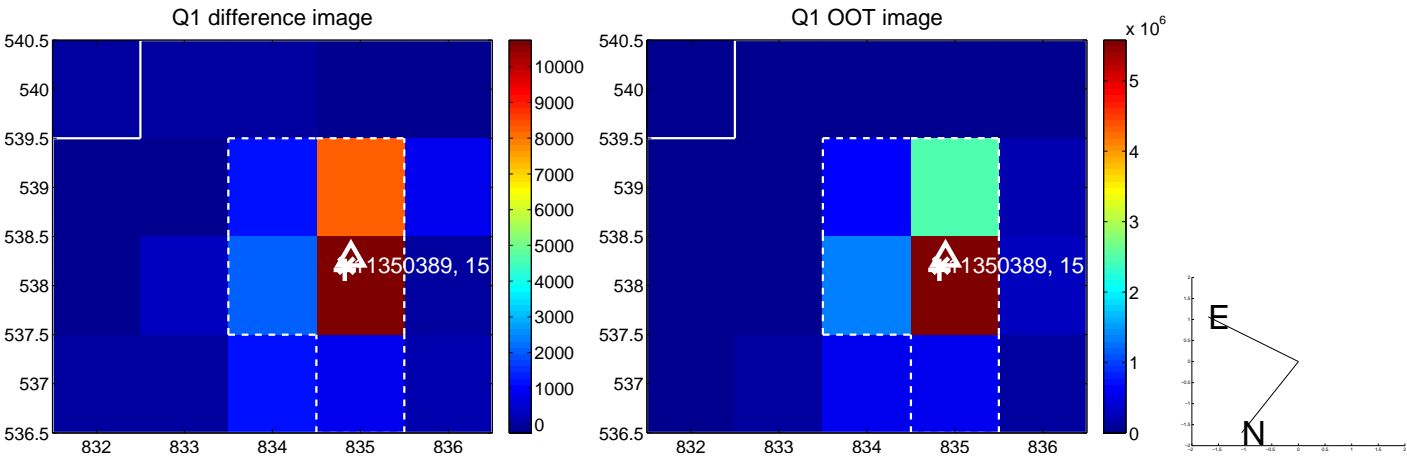


offset from photometric centroids

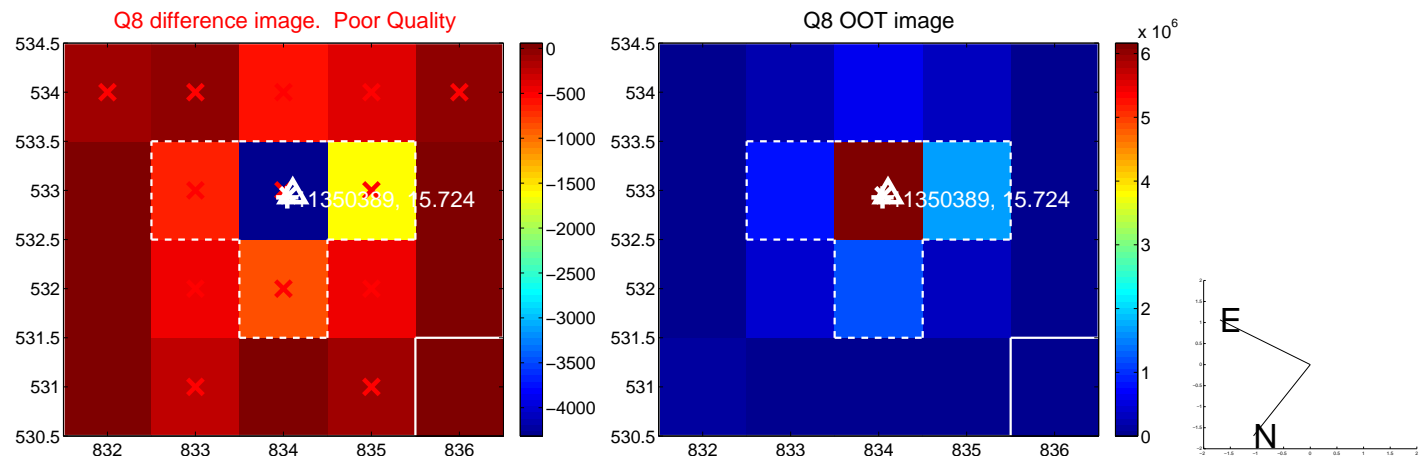
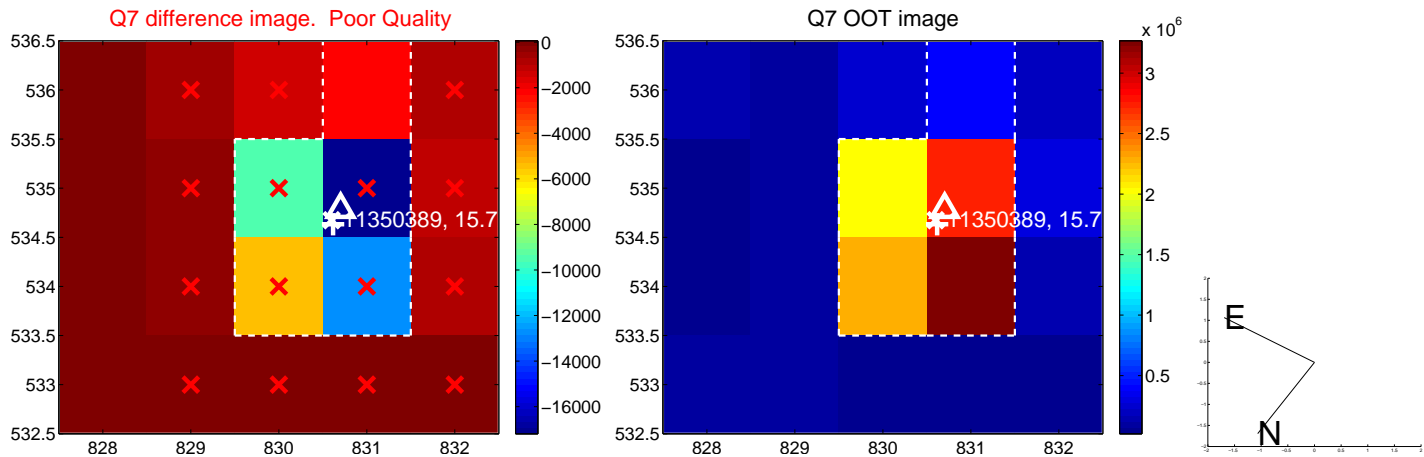
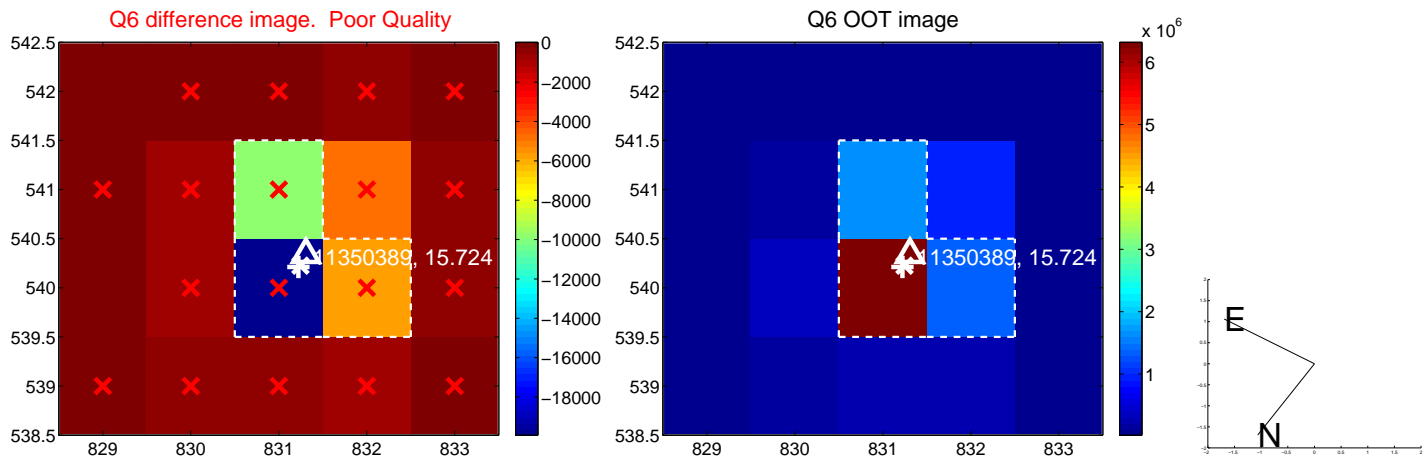
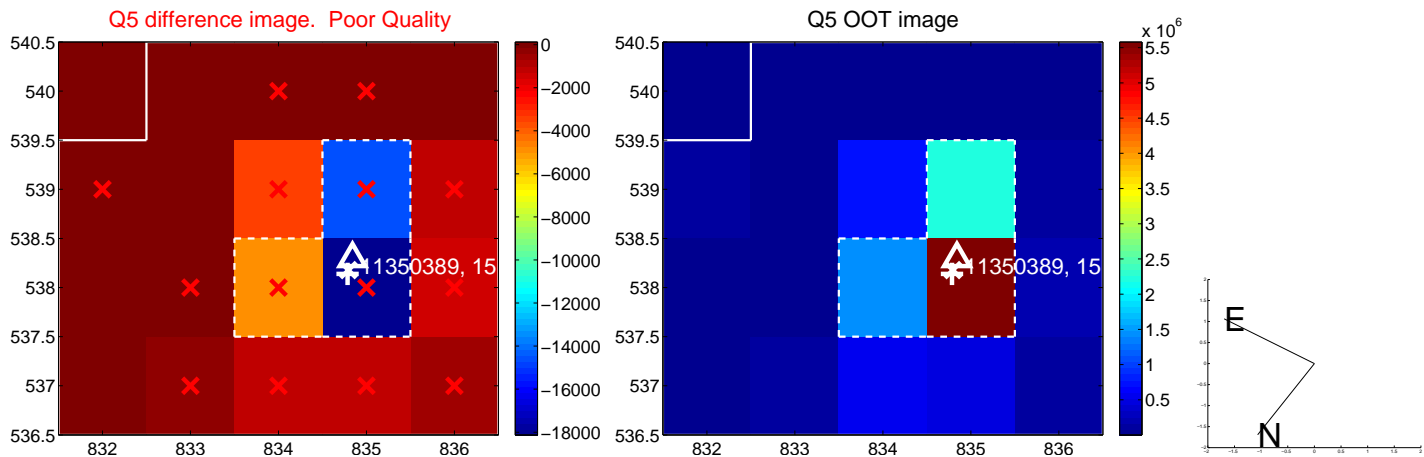


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

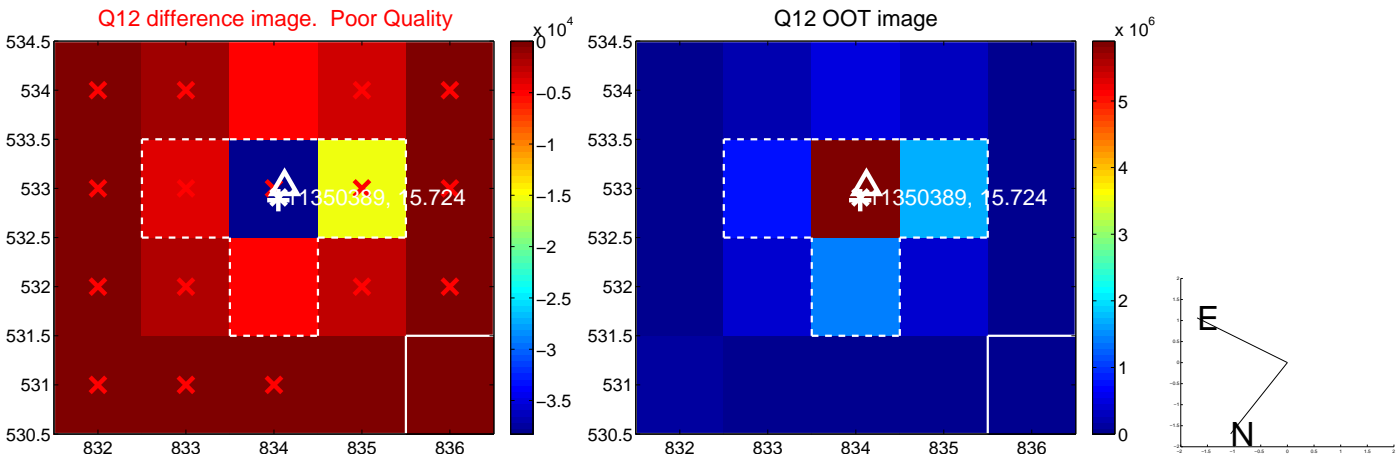
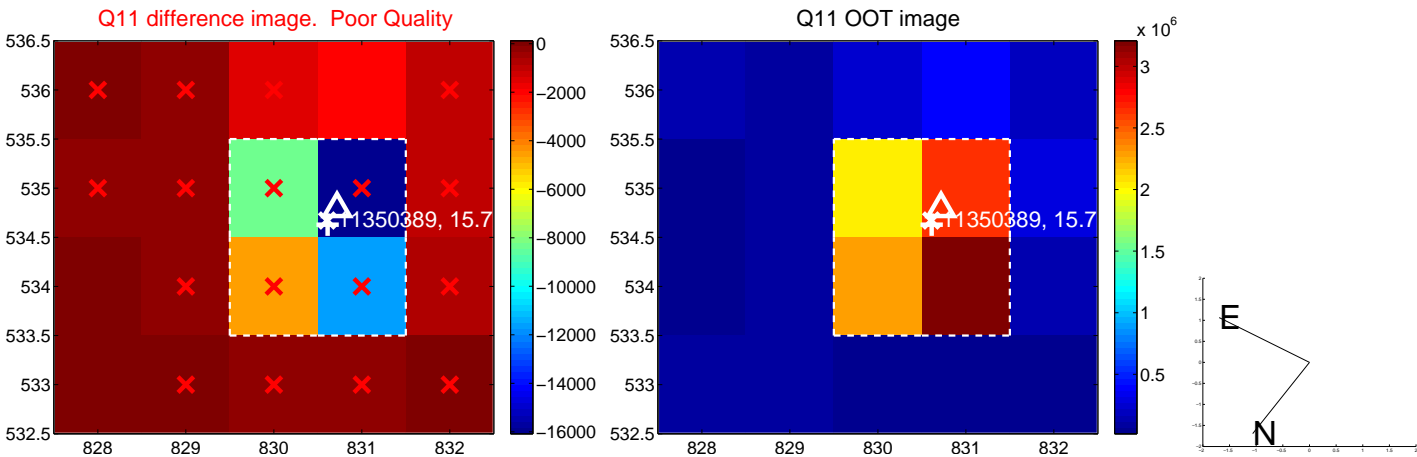
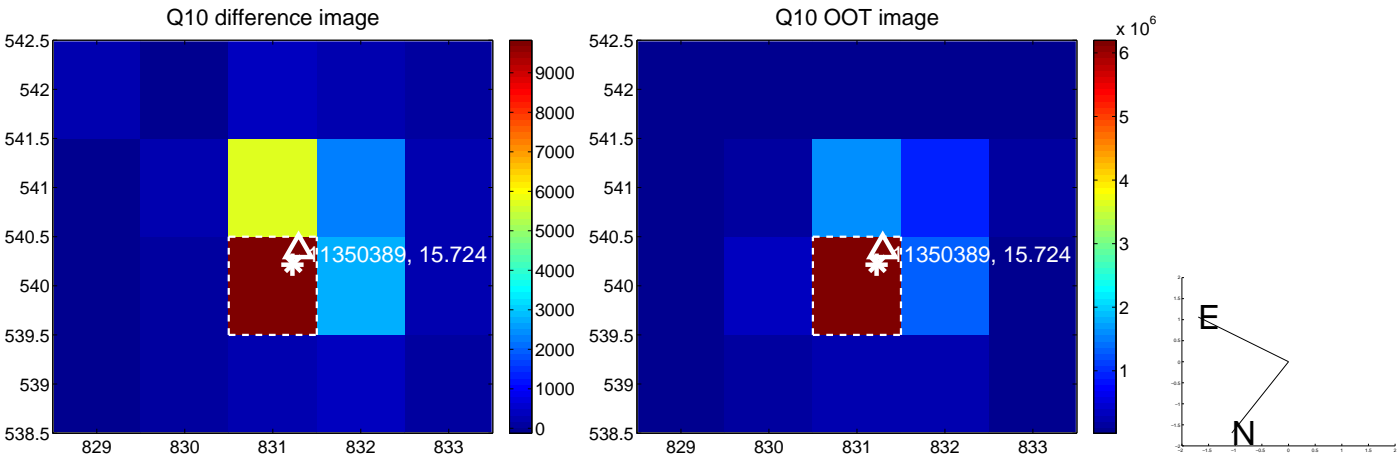
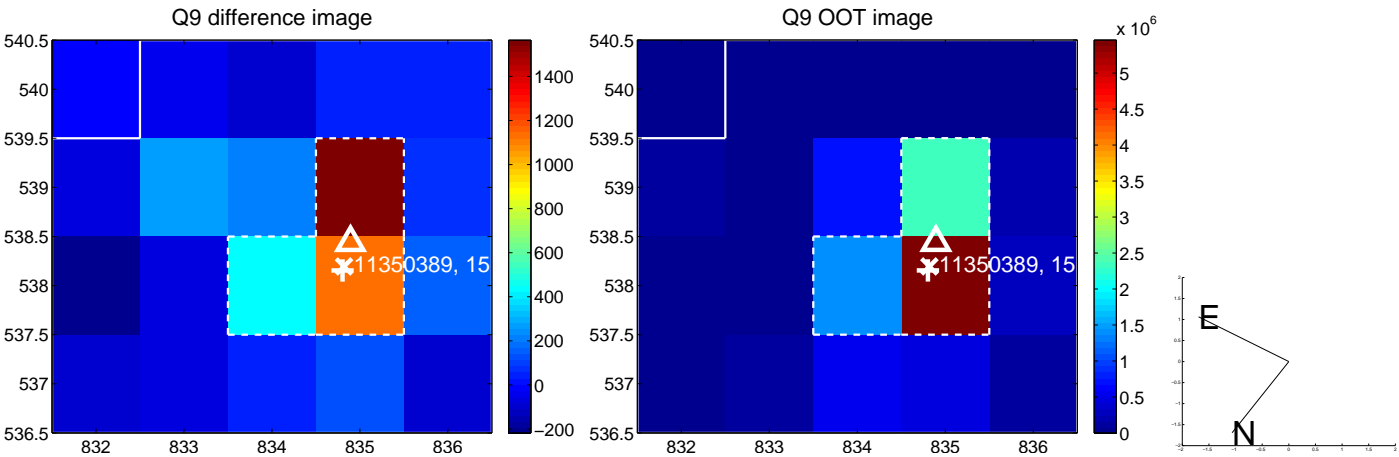
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



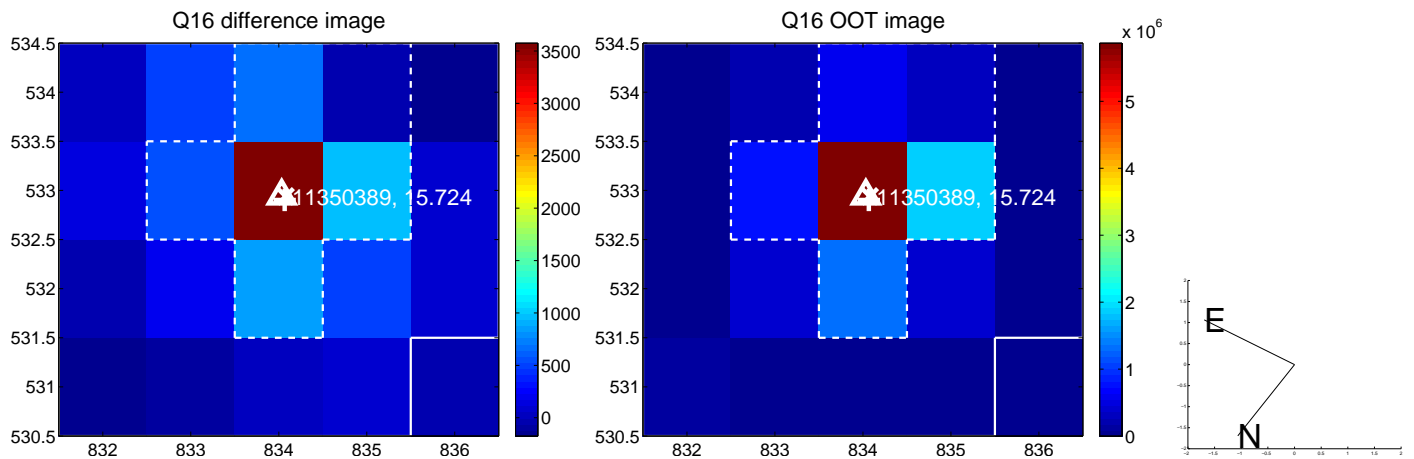
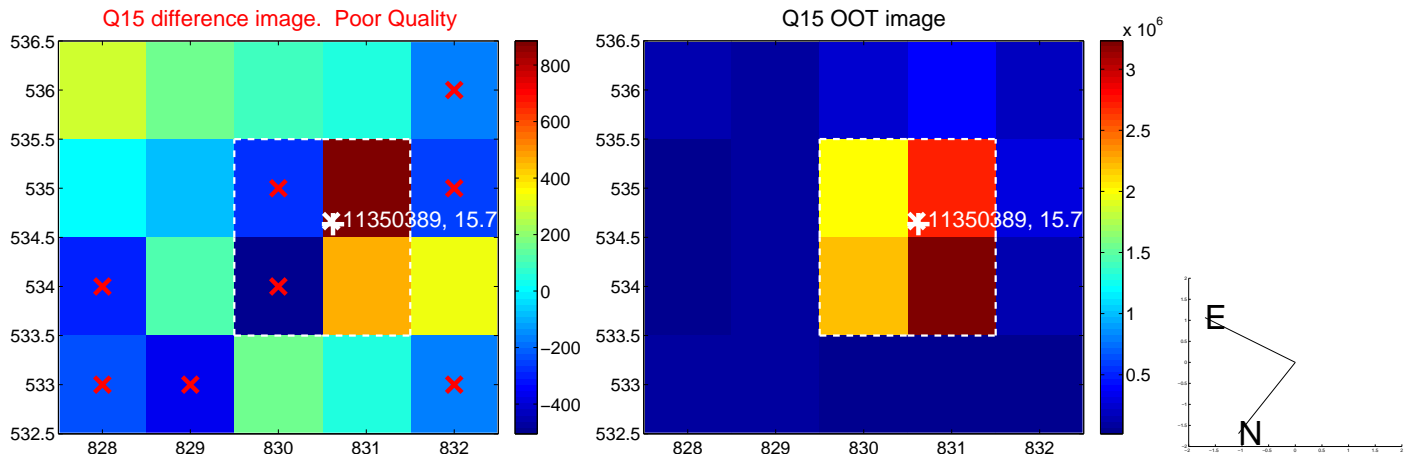
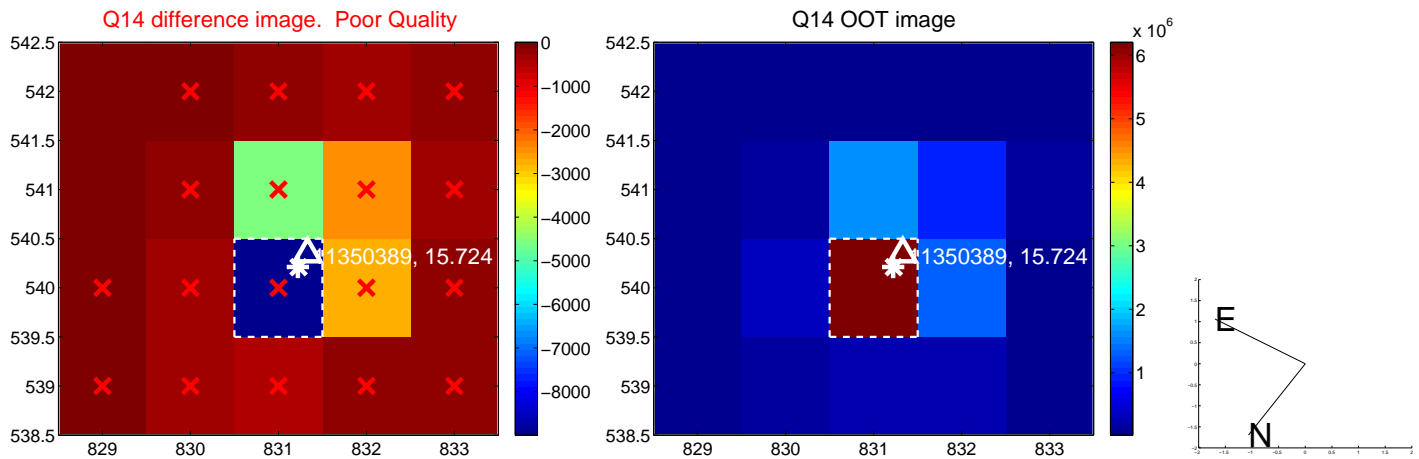
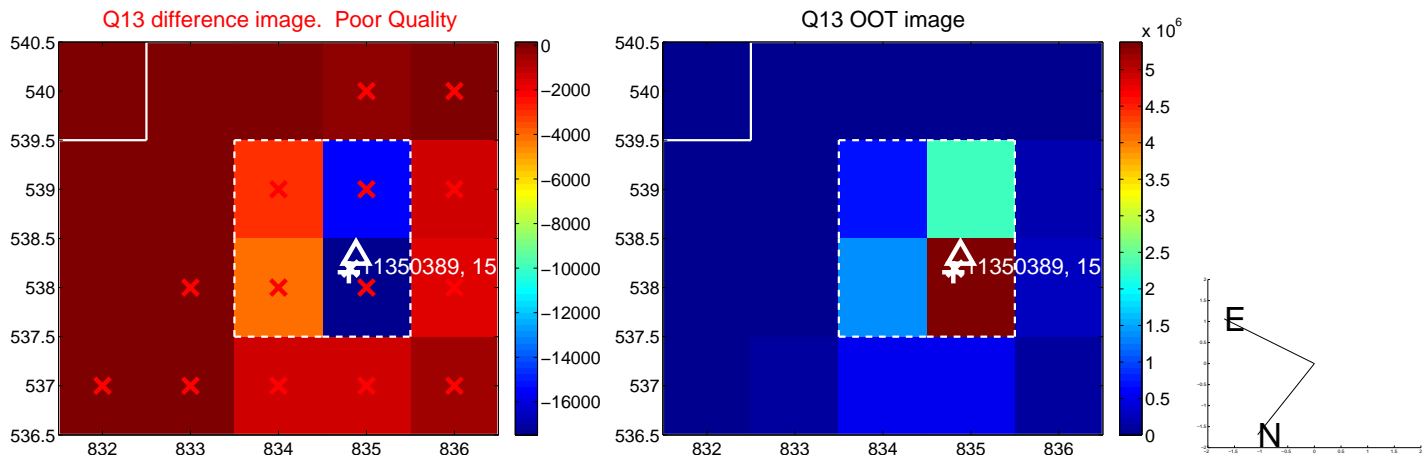
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



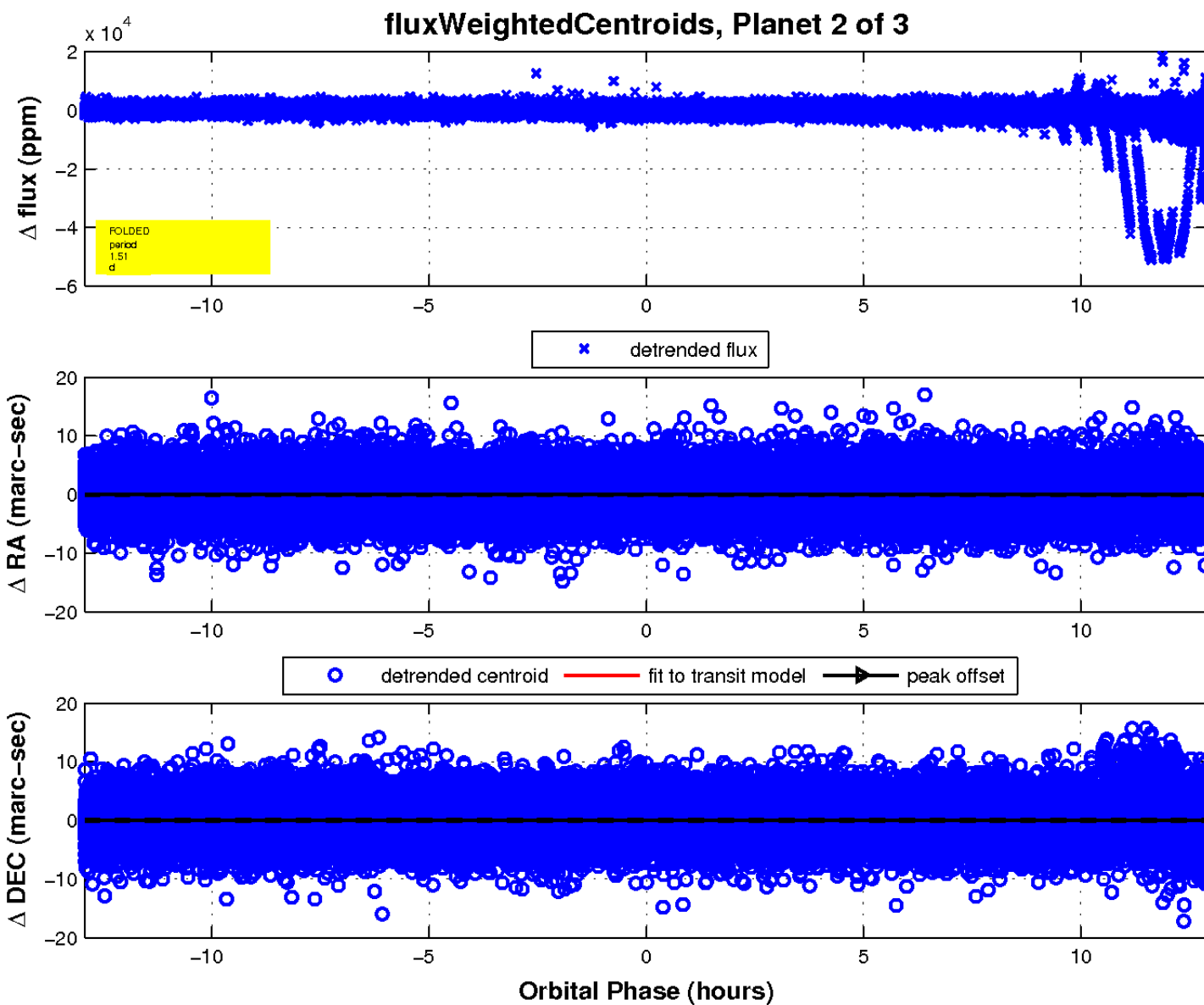
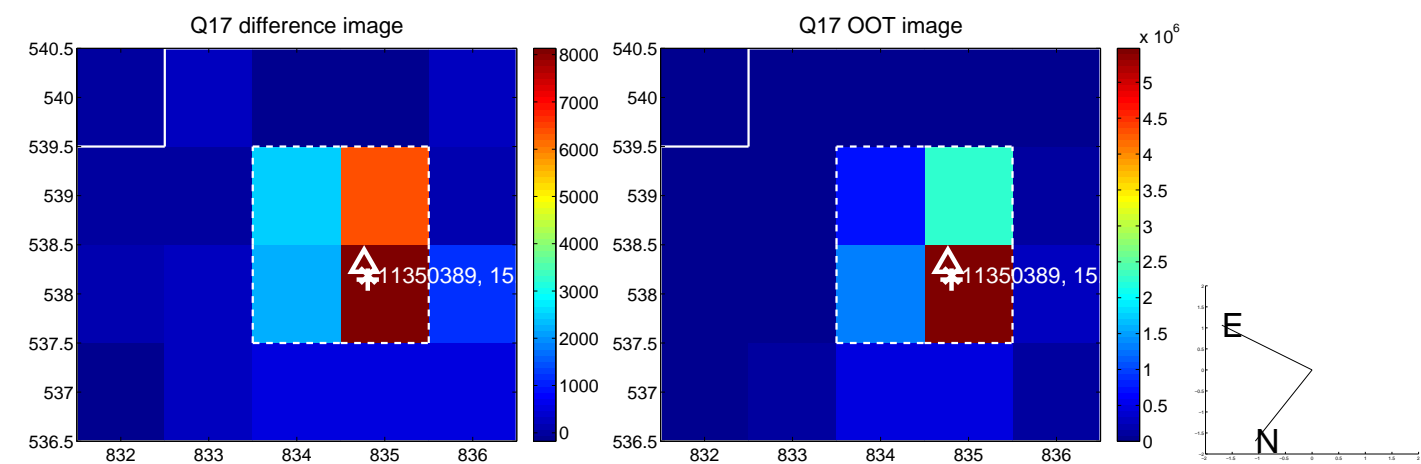
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

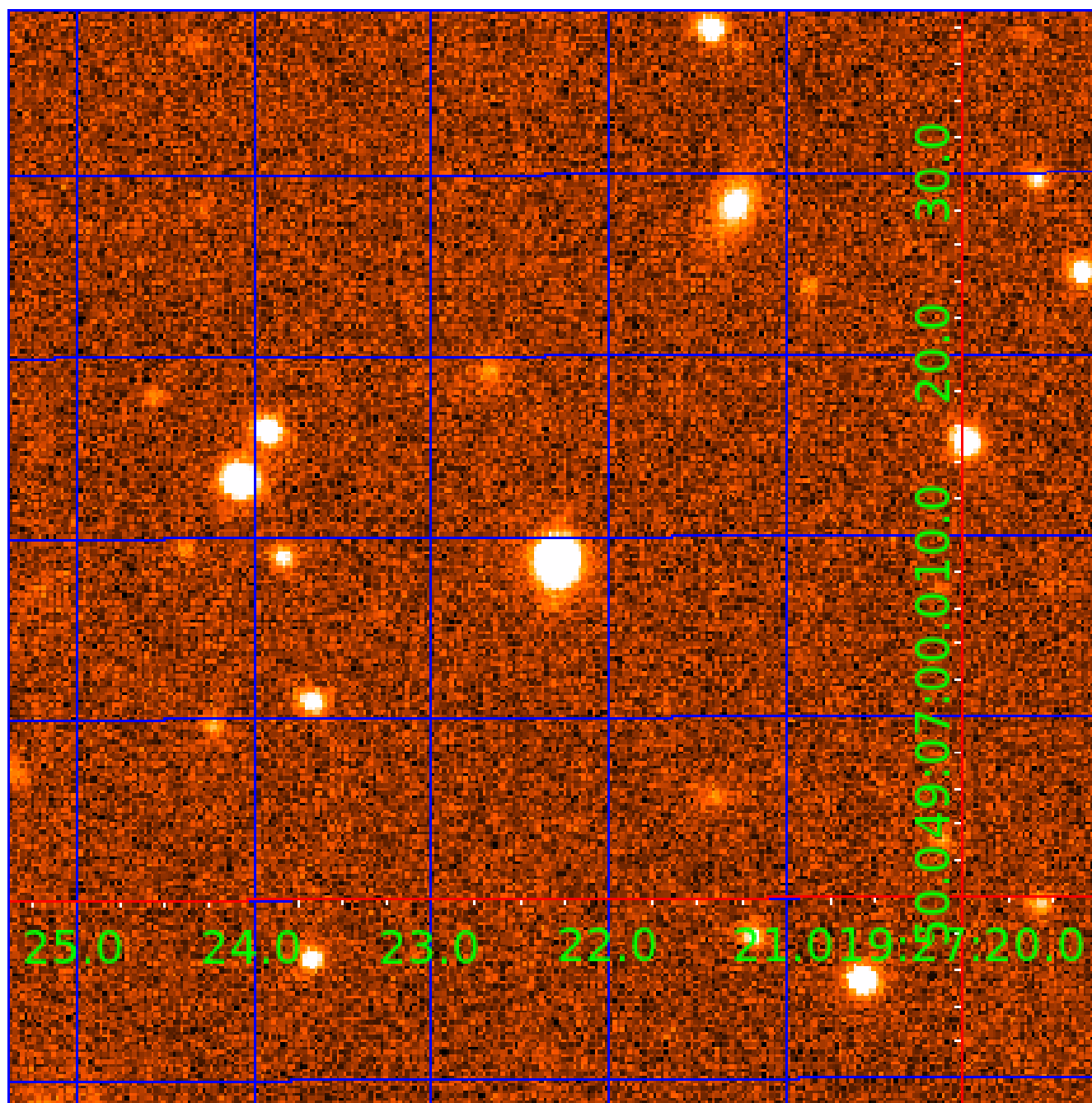


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011350389

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})
011350389-01	OBS	7438.01	1.512659	132.021399	22699.6	1.925	1033.5	671.9	0.81	5258	16.61	803.90
011350389-02	OBS	No	1.512368	133.090330	81.5	4.308	8.3	5.2	0.81	5258	0.92	804.11
011350389-03	OBS	No	48.365927	156.296018	1549.3	2.595	12.8	5.7	0.81	5258	3.35	7.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350389-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_DV—DEEP_V_SHAPED—HAS_SEC_TCE
011350389-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
011350389-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES

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 011350389-03

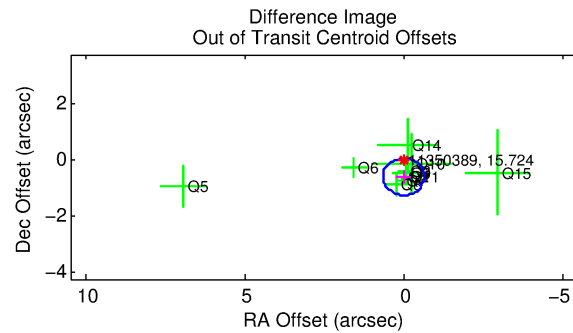
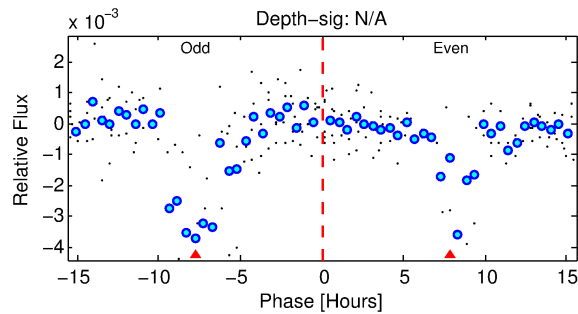
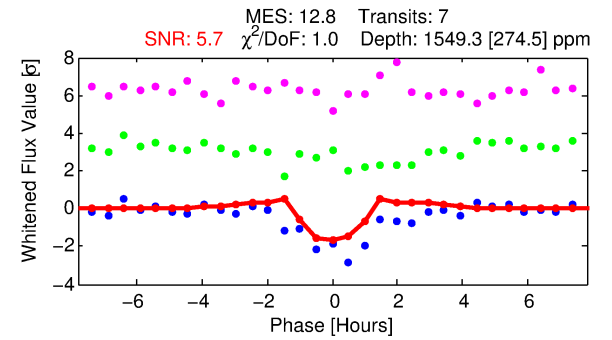
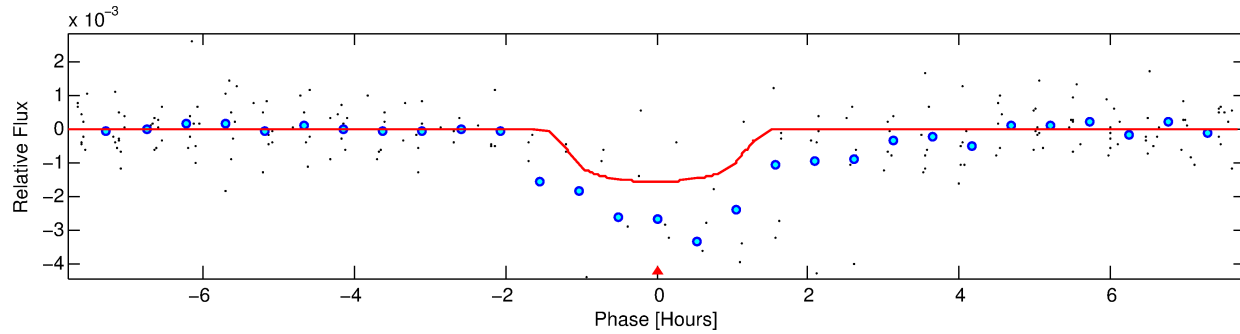
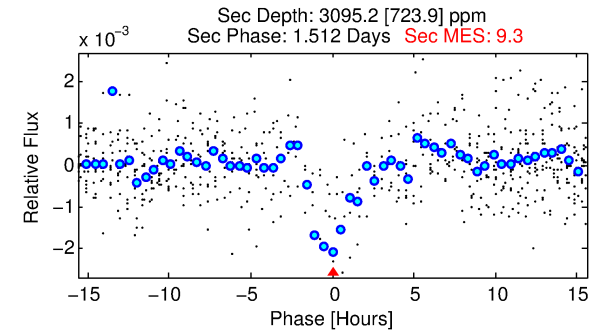
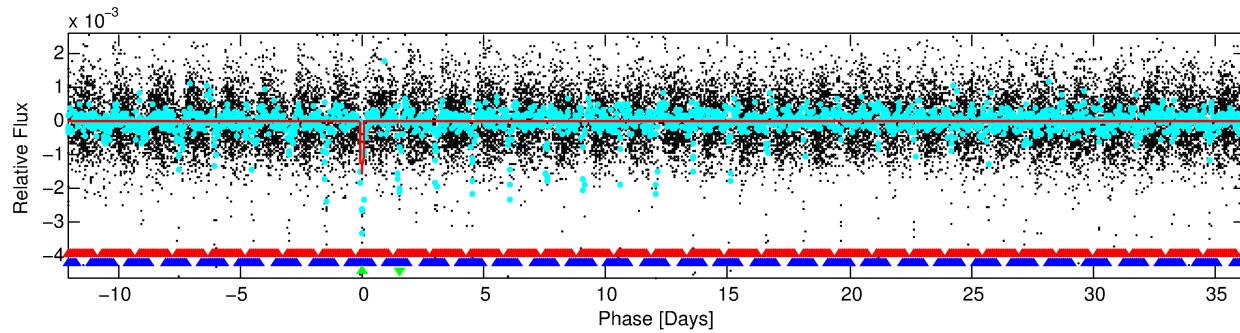
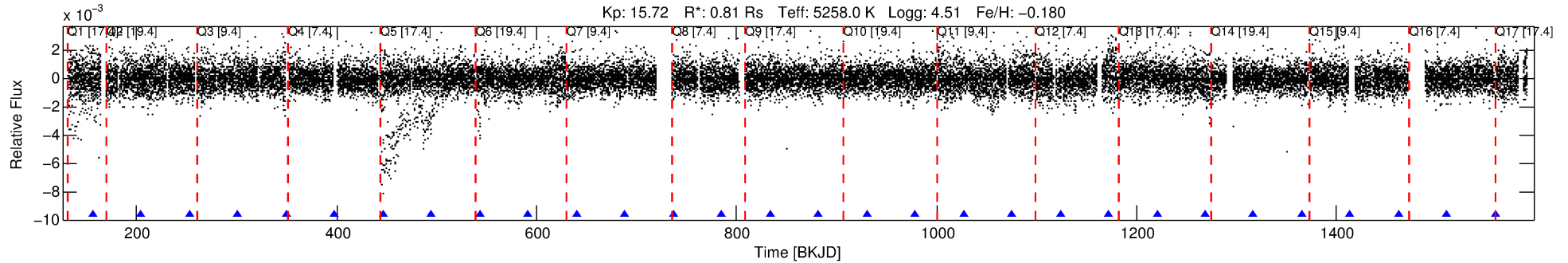
No Significant Match Found

DV One-Page Summary

KIC: 11350389 Candidate: 3 of 3 Period: 48.366 d

KOI: K07438 Corr: No Ephemeris Match

Kp: 15.72 R*: 0.81 Rs Teff: 5258.0 K Logg: 4.51 Fe/H: -0.180



DV Fit Results:

Period = 48.36593 [0.00082] d
Epoch = 156.2960 [0.0136] BKJD
Rp/R* = 0.0378 [0.1830]
a/R* = 115.92 [2101.26]
b = 0.64 [16.88]
Seff = 7.92 [1.62]
Teq = 428 [22] K
Rp = 3.35 [16.20] Re
a = 0.2385 [0.0274] AU
Ag = 8630.76 [83508.77] [0.10σ]
Teffp = 6375 [15420] K [0.39σ]

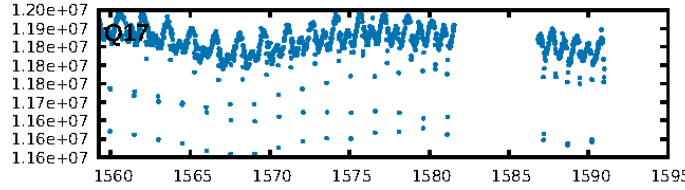
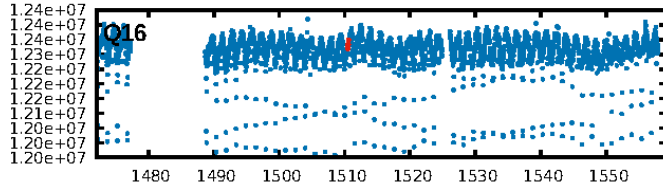
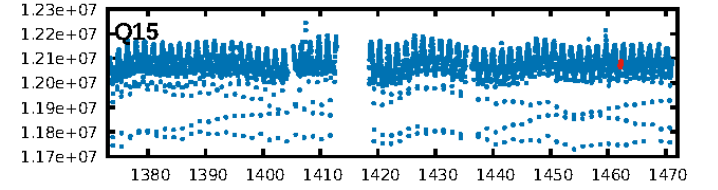
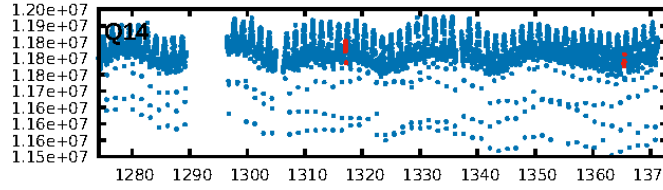
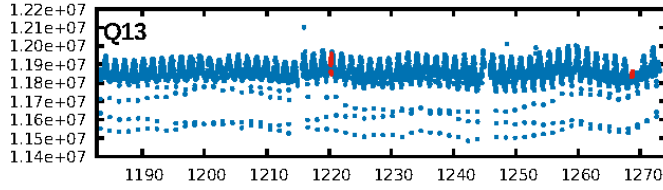
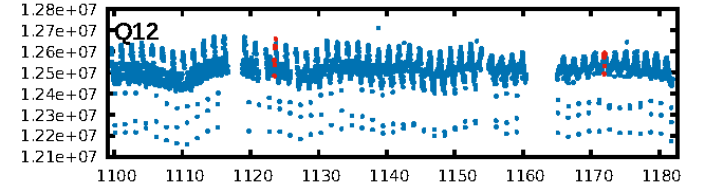
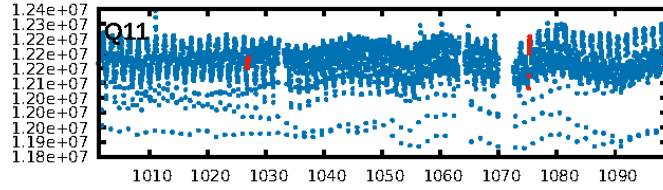
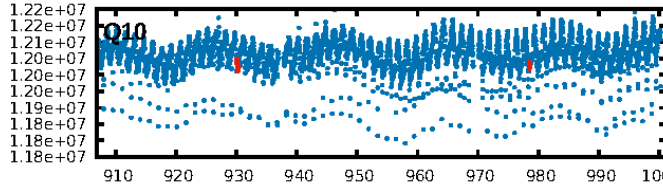
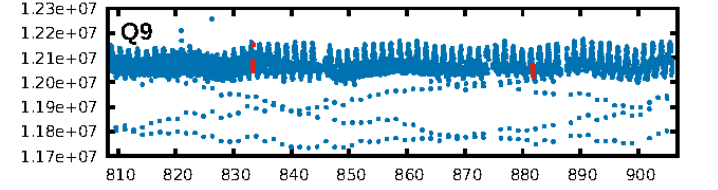
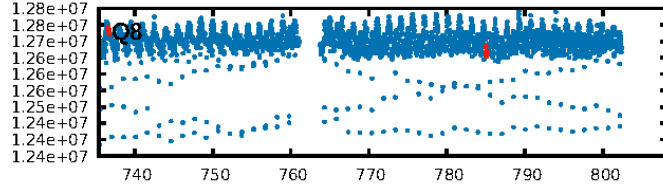
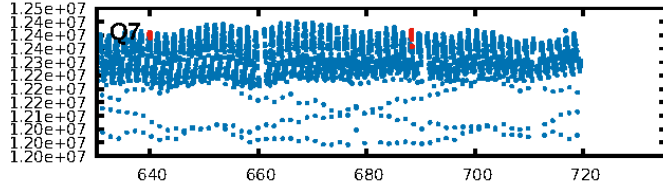
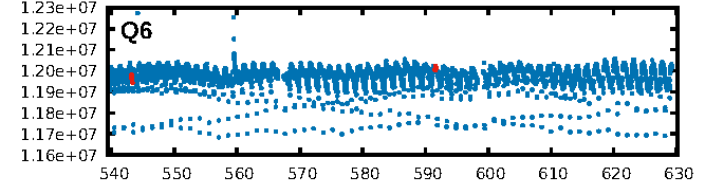
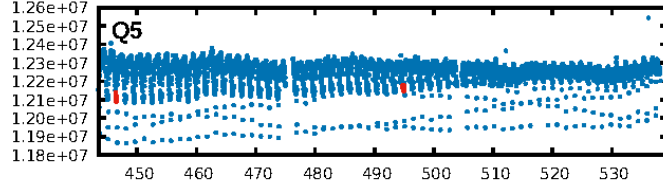
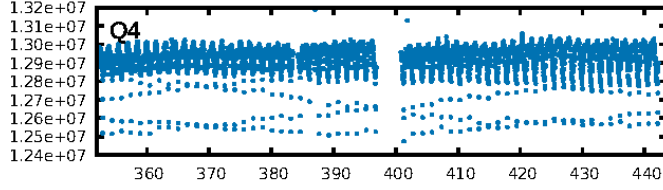
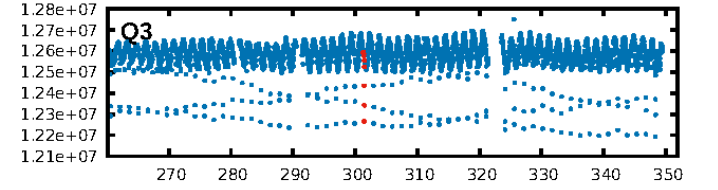
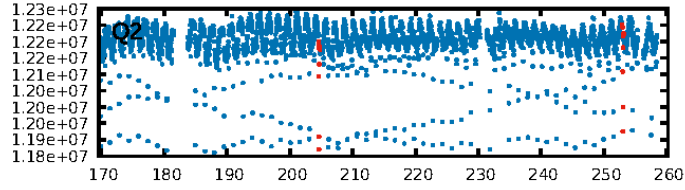
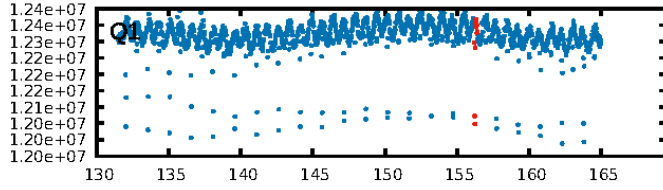
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [347.98σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 4.3%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -6.989
Centroid-sig: 1.3%
Centroid-so: 0.783 arcsec [1.43σ]
OotOffset-rm: 0.611 arcsec [2.82σ]
KicOffset-rm: 0.532 arcsec [2.45σ]
OotOffset-st: 4/4/1/2 [11]
KicOffset-st: 4/4/1/2 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 0.00 [0/13]

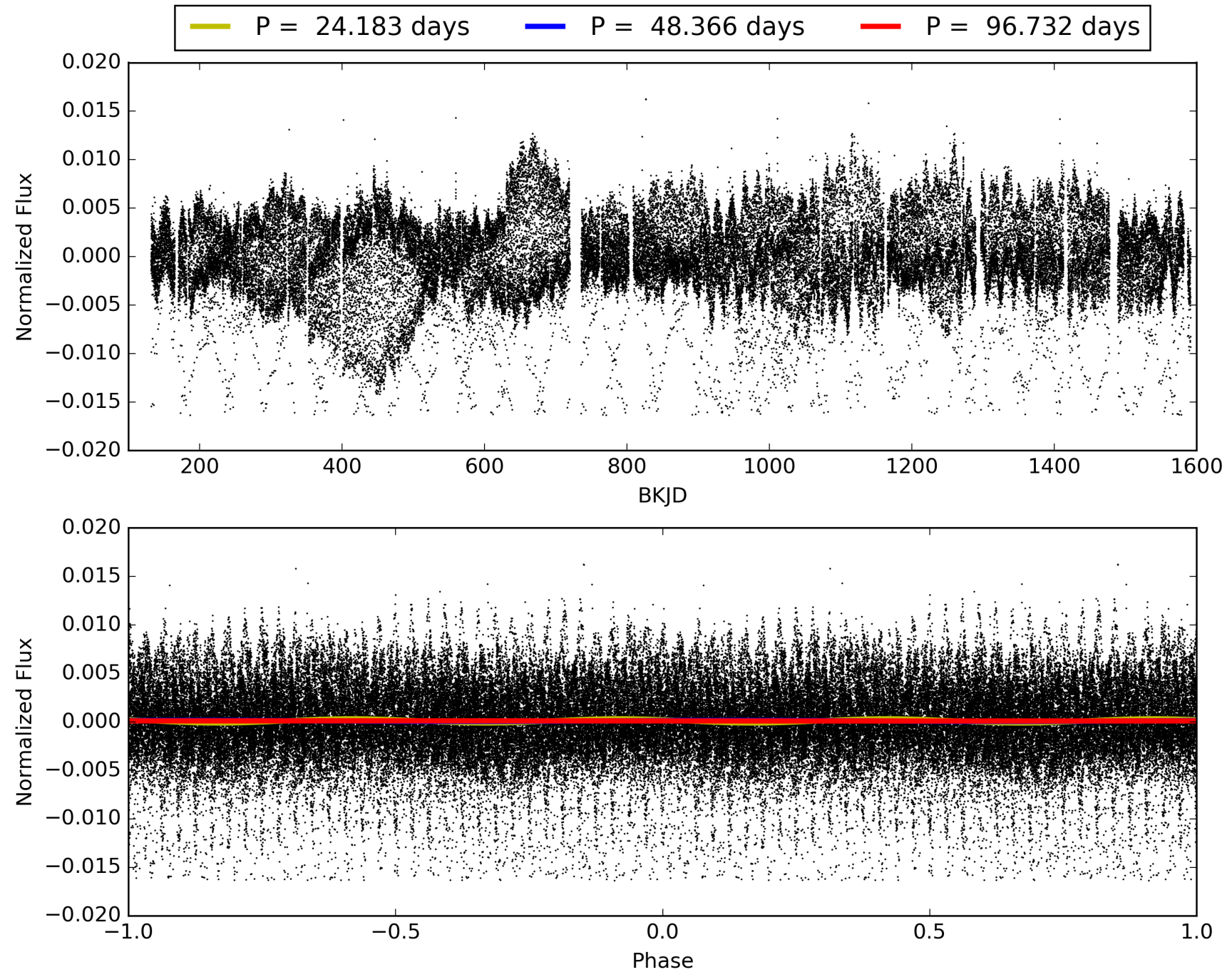
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:29:38 Z

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

TCE 011350389-03, PDC Light Curves

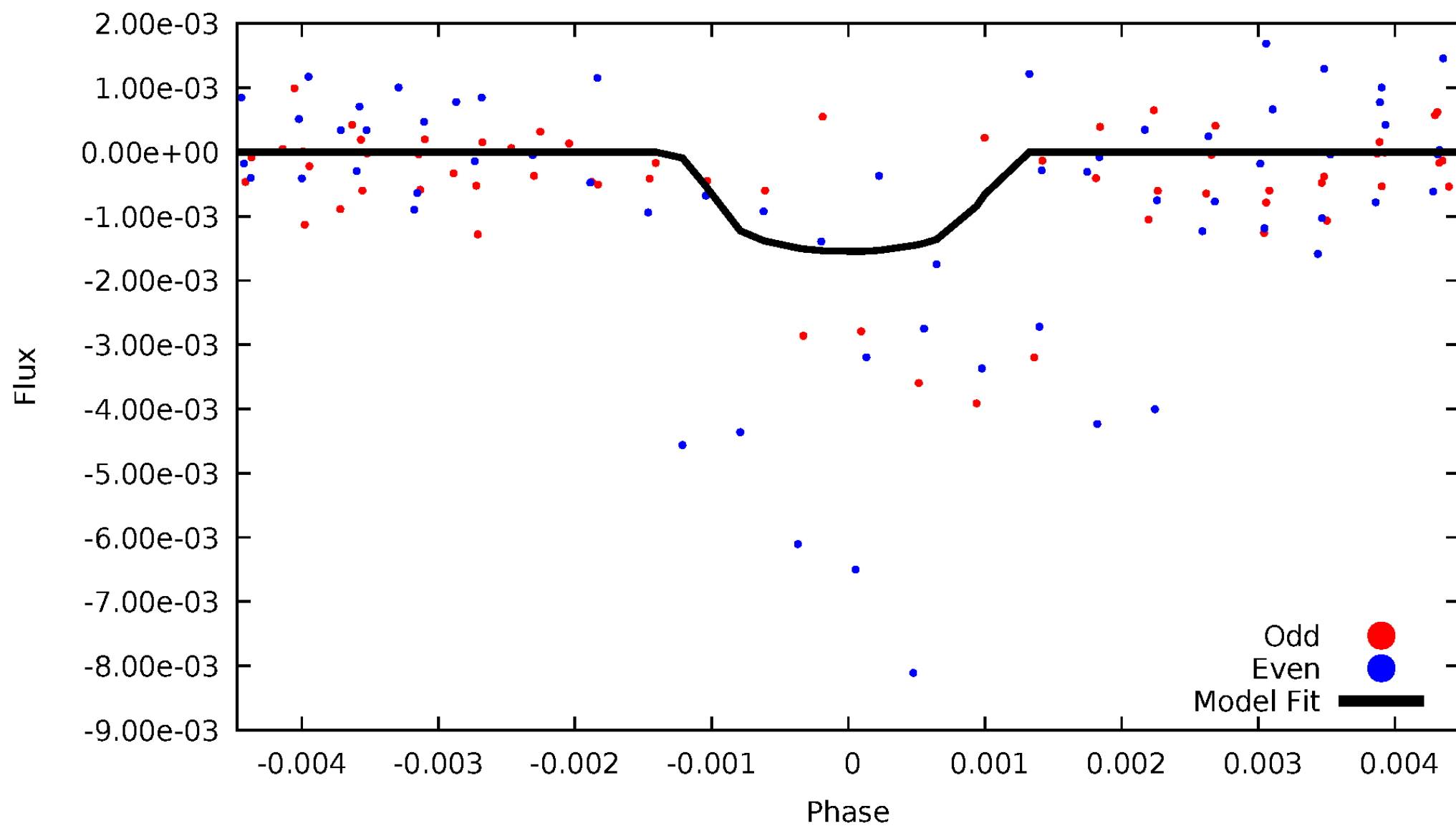


TCE 011350389-03



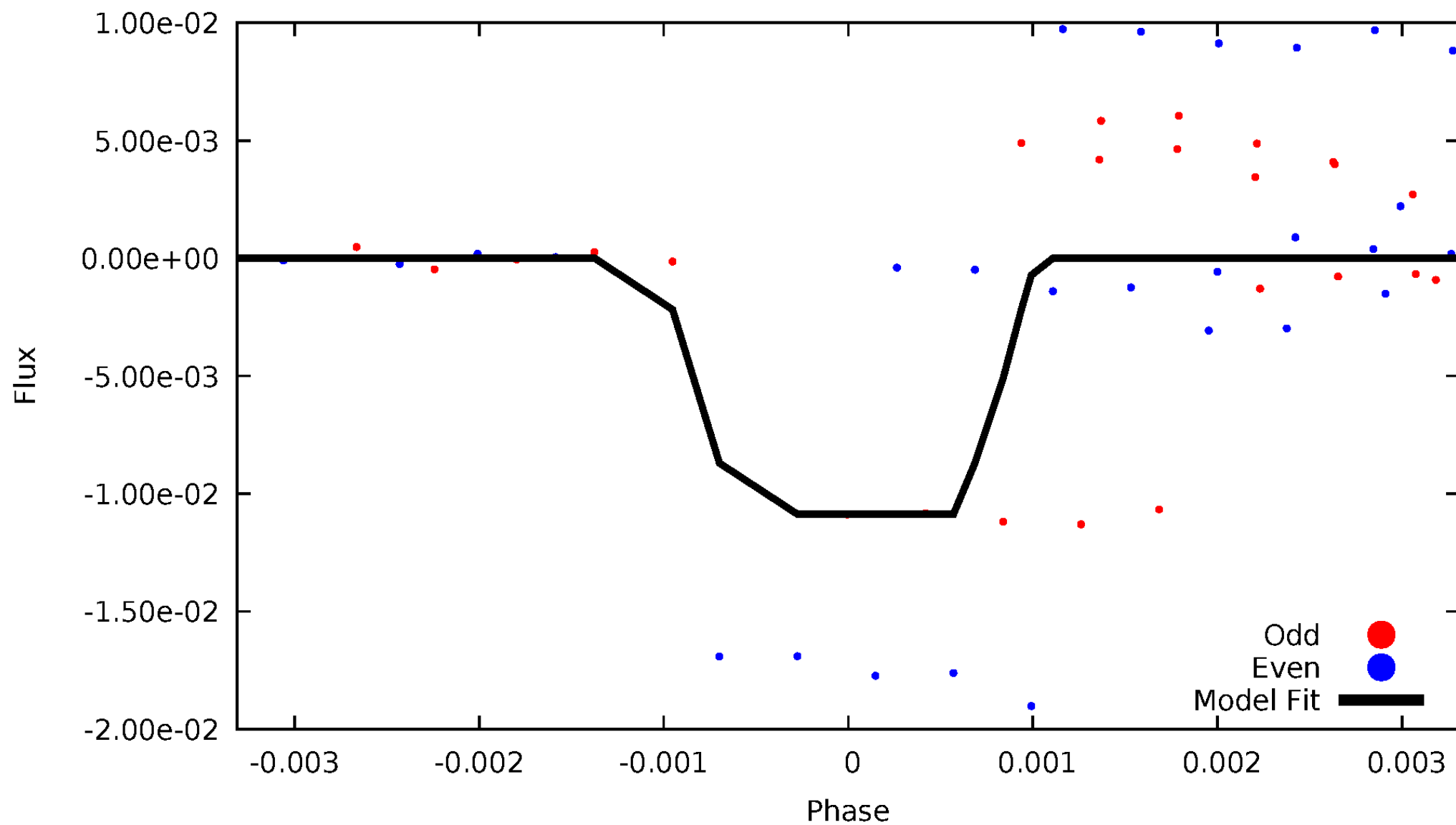
DV Odd/Even

TCE 011350389-03



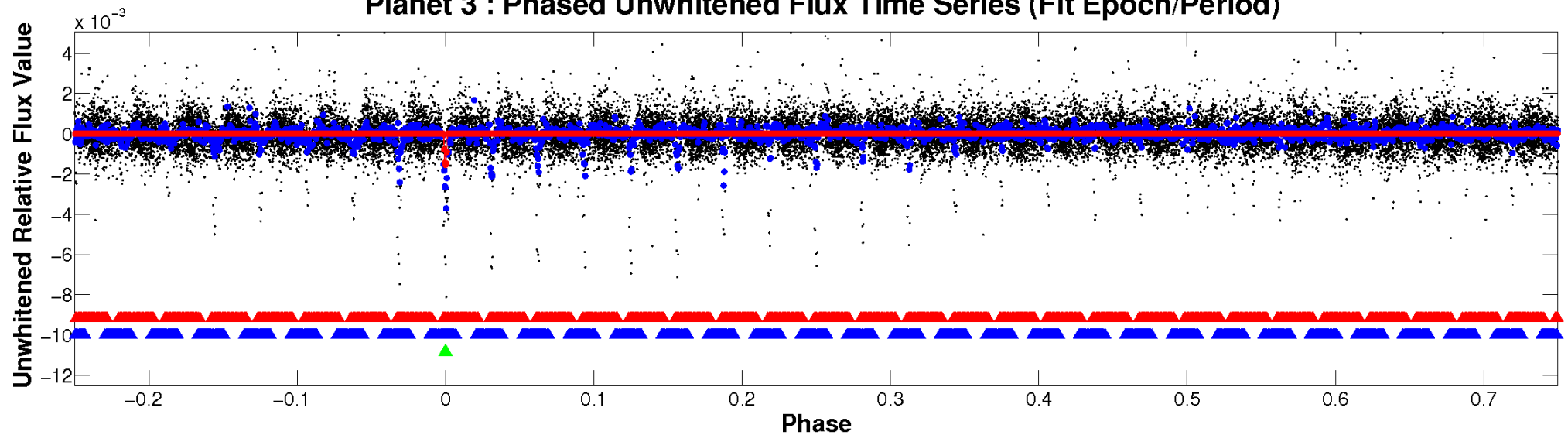
ALT Odd/Even

TCE 011350389-03

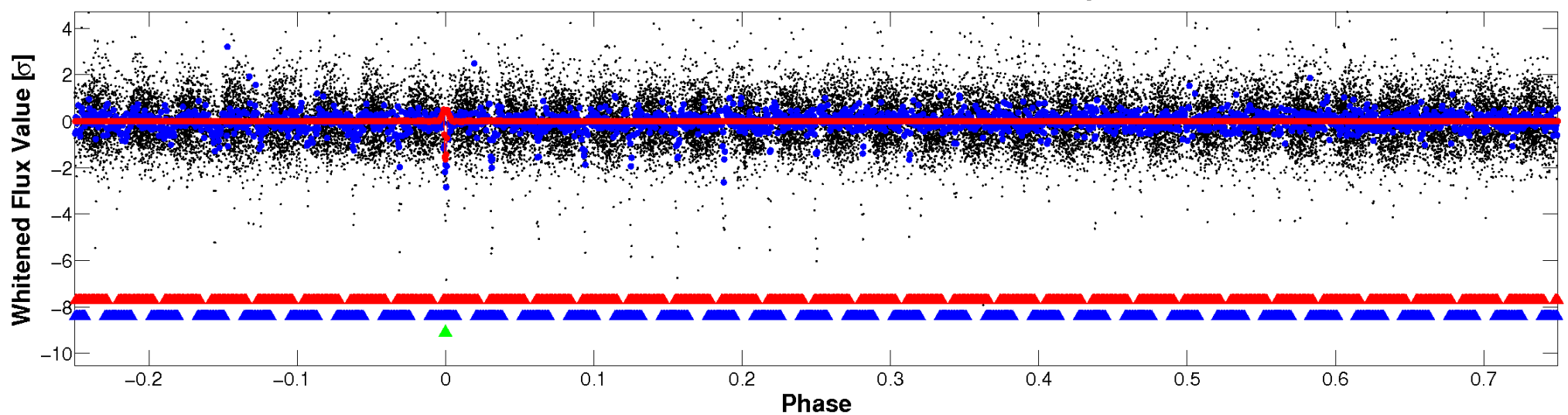


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

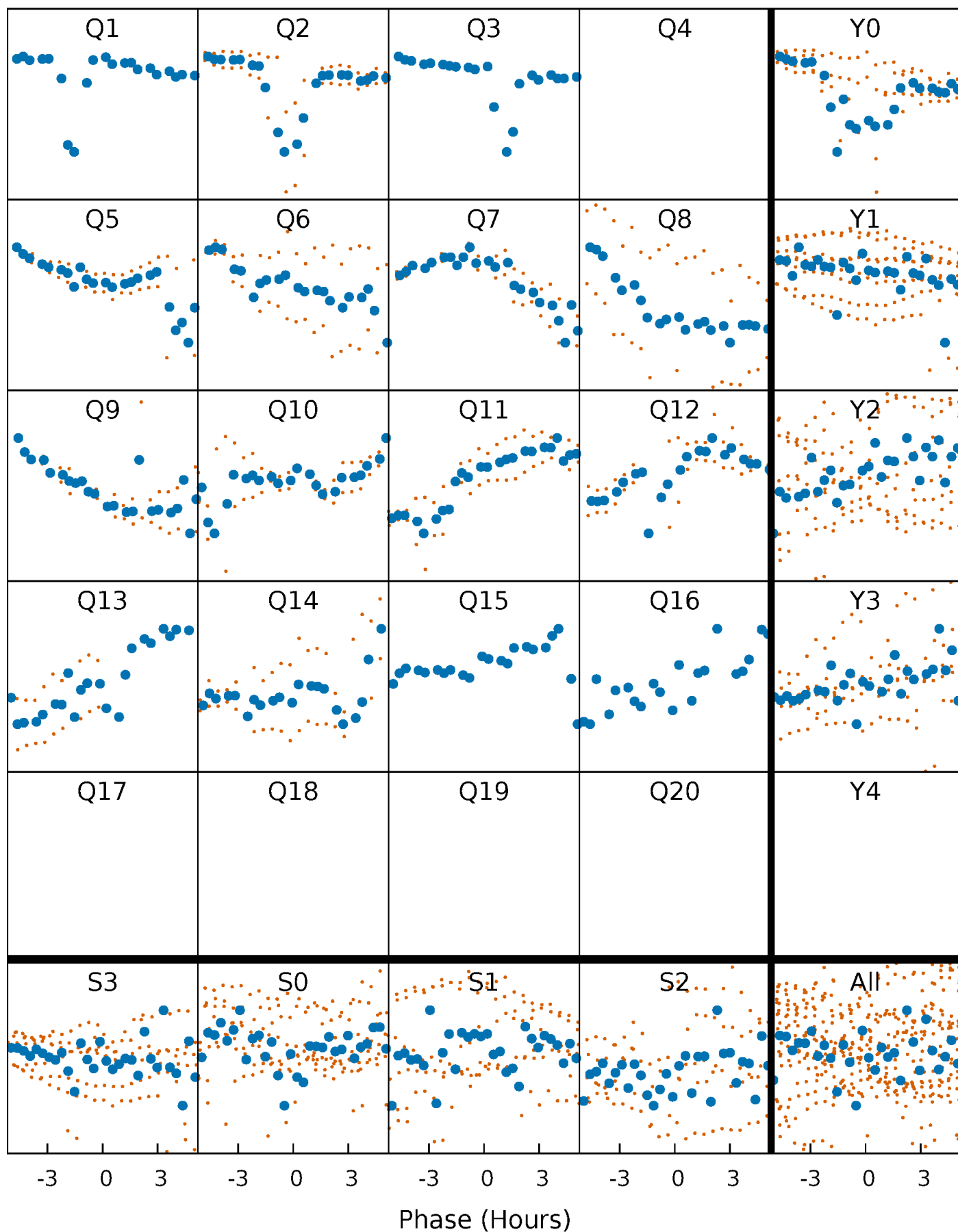


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



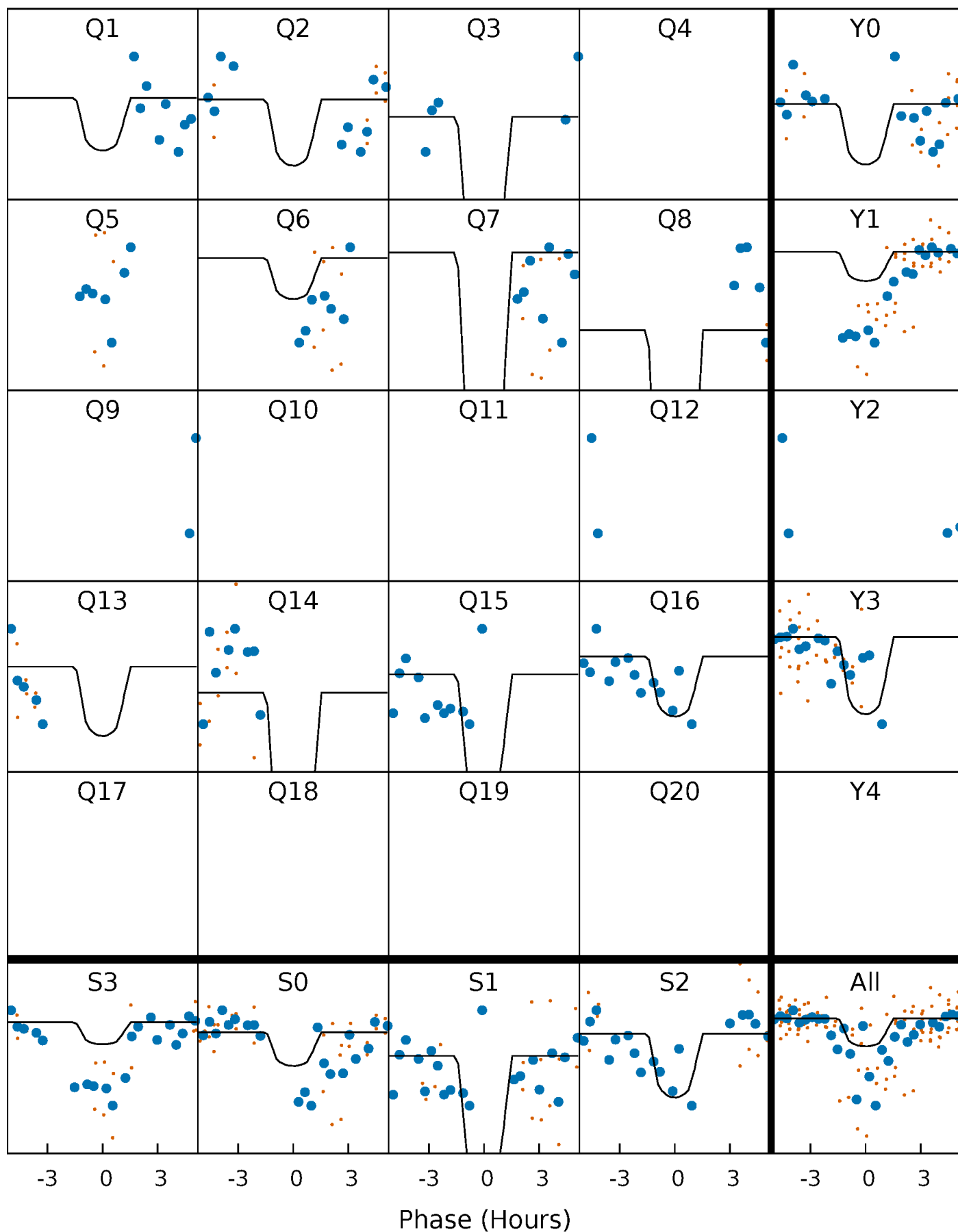
PDC Quarter-Phased Transit Curves

TCE 011350389-03 P= 48.365927 Days $T_0=156.296018$ (BKJD)



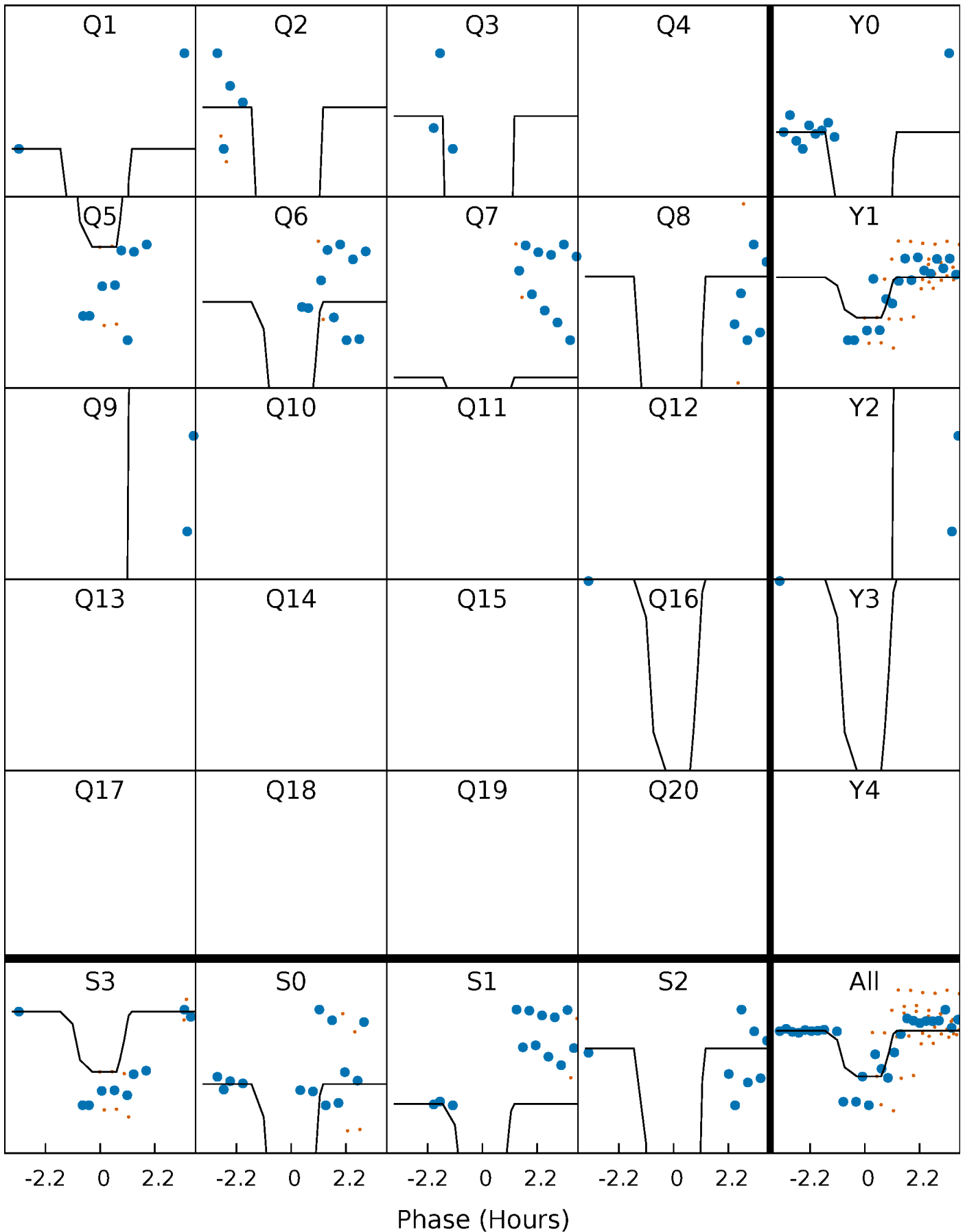
DV Quarter-Phased Transit Curves

TCE 011350389-03 $P = 48.365927$ Days $T_0 = 156.296018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

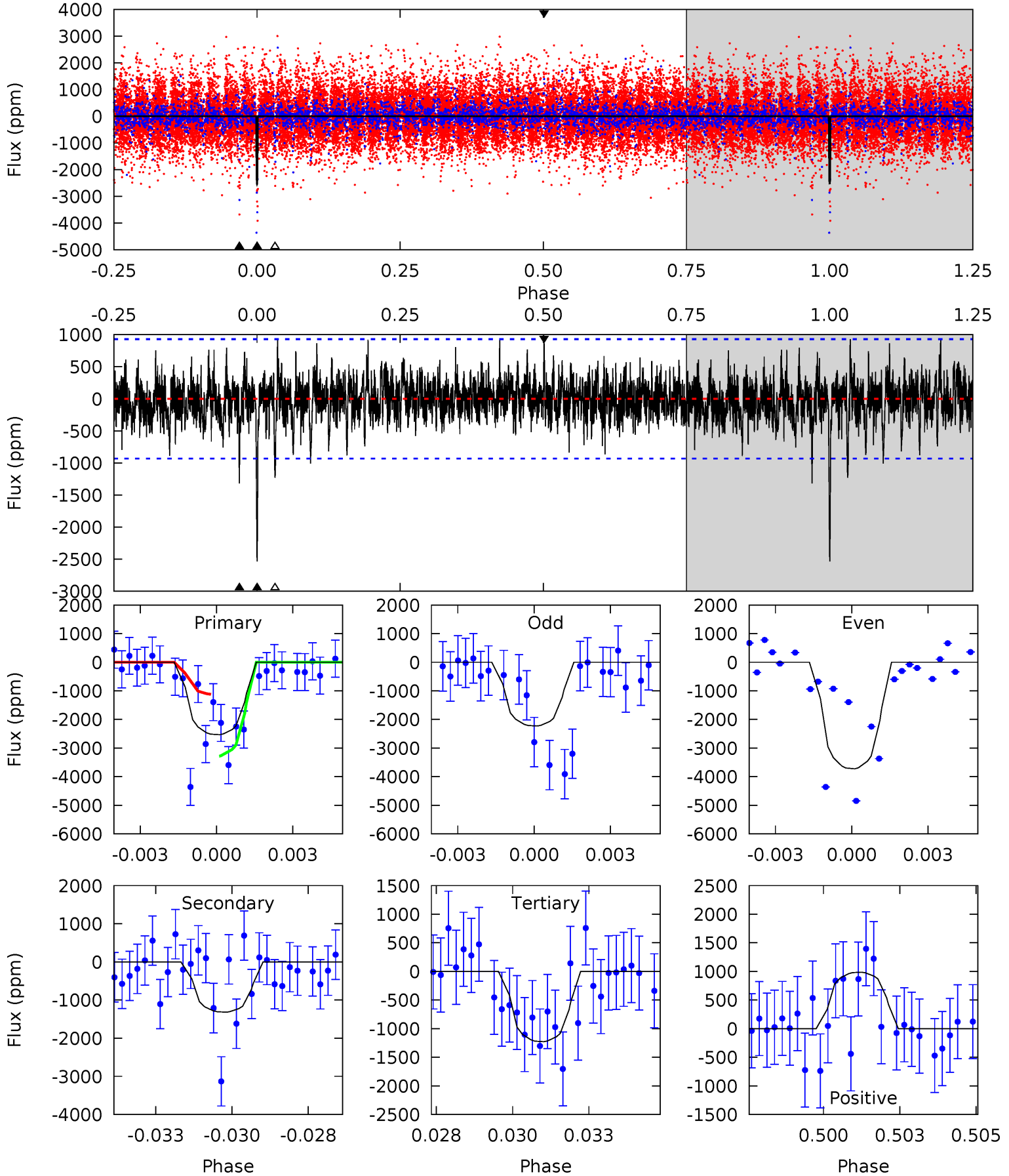
TCE 011350389-03 $P = 48.375210$ Days $T_0 = 156.215394$ (BKJD)



DV Model-Shift Uniqueness Test

011350389-03, P = 48.365927 Days, E = 107.930091 Days

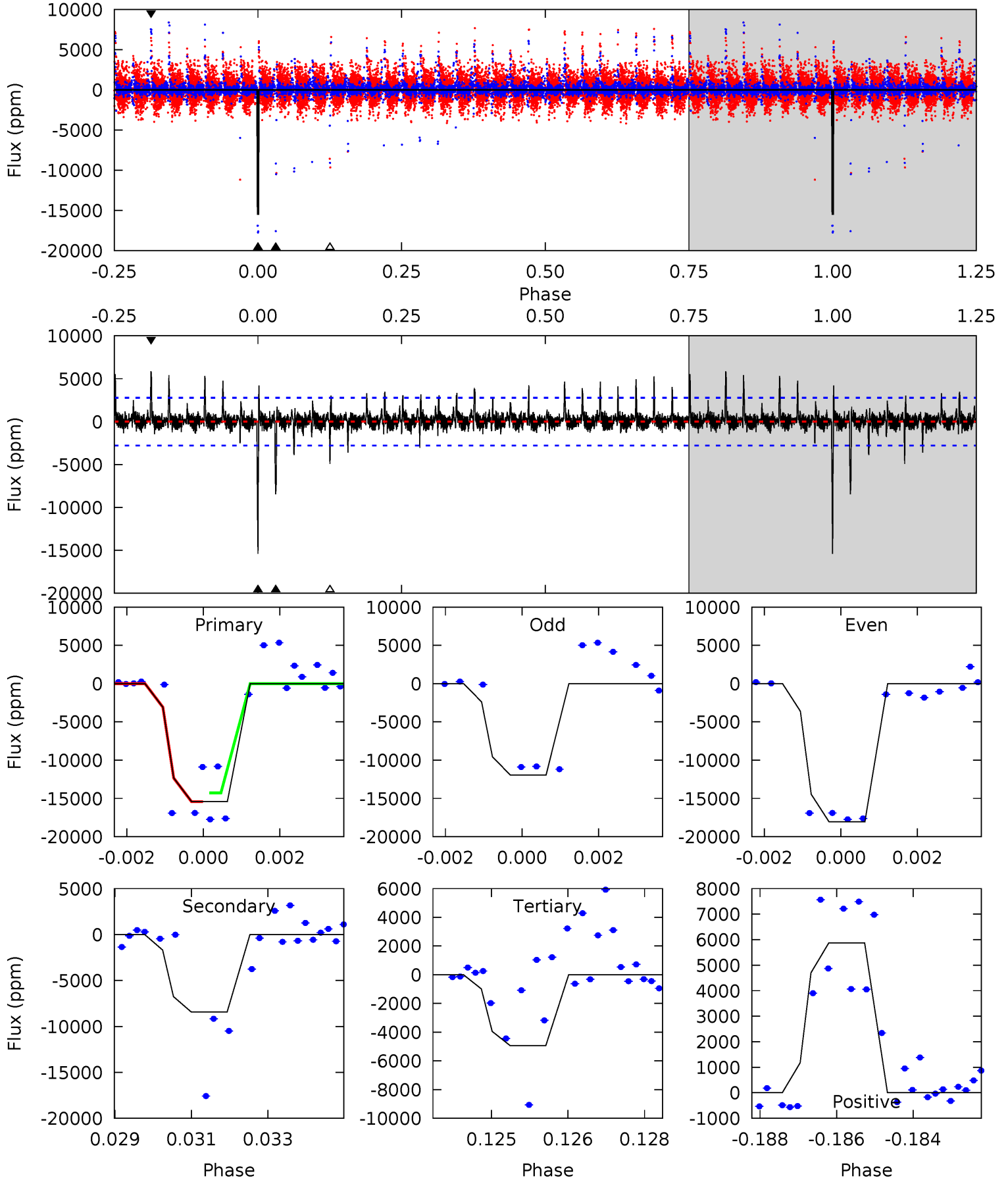
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	7.48	6.97	5.60	5.28	3.02	1.29	7.41	8.78	0.51	1.88	4.26	0.86	0.28	5.95



Alt Model-Shift Uniqueness Test

011350389-03, P = 48.375210 Days, E = 107.840184 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	16.2	9.48	11.3	5.35	3.12	1.04	20.1	18.3	6.74	4.92	5.83	0.85	0.28	1.00



Stellar Parameters For KIC 011350389

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5258^{+158}_{-142}	$4.508^{+0.090}_{-0.090}$	$-0.180^{+0.300}_{-0.300}$	$0.811^{+0.112}_{-0.091}$	$0.772^{+0.109}_{-0.062}$	$2.039^{+0.741}_{-0.543}$
	+3%/-3%	+2%/-2%	+167%/-167%	+14%/-11%	+14%/-8%	+36%/-27%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011350389-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1317 ± 176	$13.21^{+12.11}_{-8.94}$	598^{+30}_{-28}	3199^{+1446}_{-541}	242^{+2075}_{-175}
Alt.	-8437 ± 520	$15.19^{+13.46}_{-10.00}$	599^{+29}_{-27}	4110^{+2433}_{-780}	1155^{+8587}_{-827}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

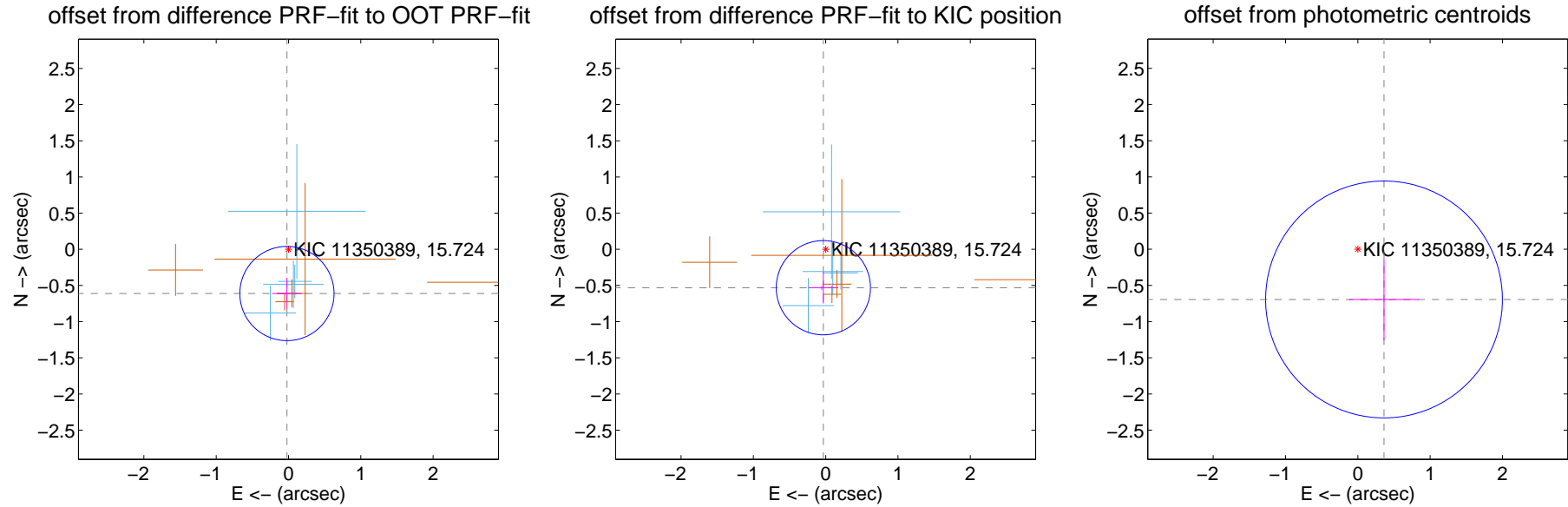
DV Centroid Data

Supplemental centroid analysis for 011350389-03. Kepler magnitude: 15.72. Transit SNR 5.72

There are 5 quarters with good PRF difference image offsets

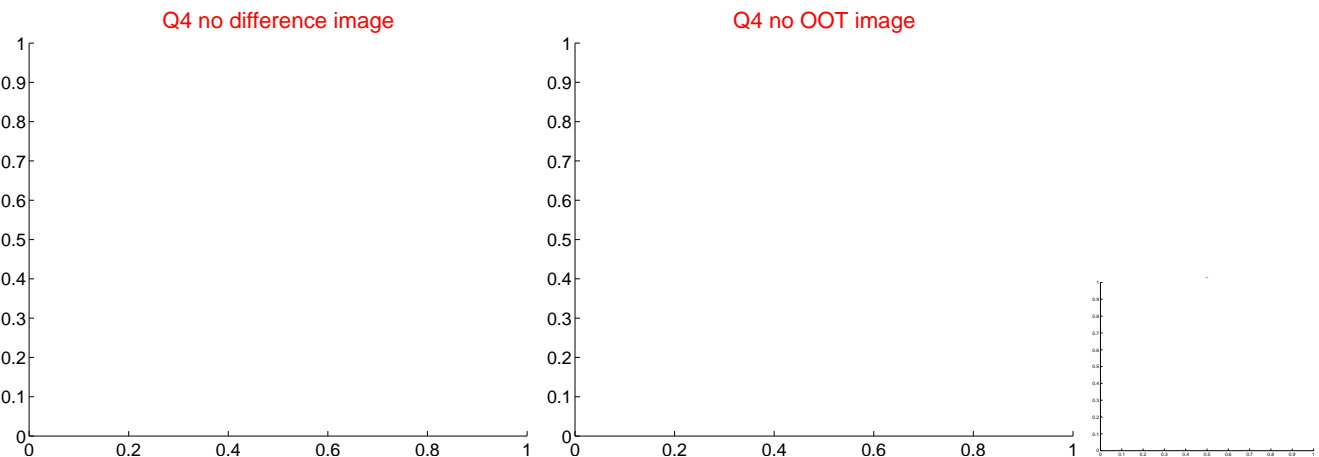
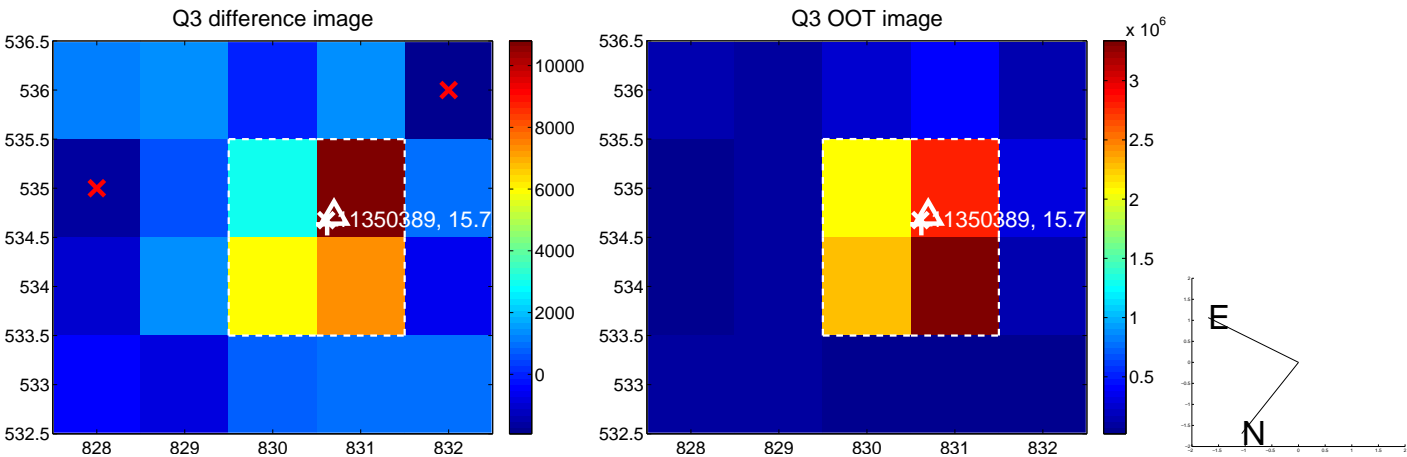
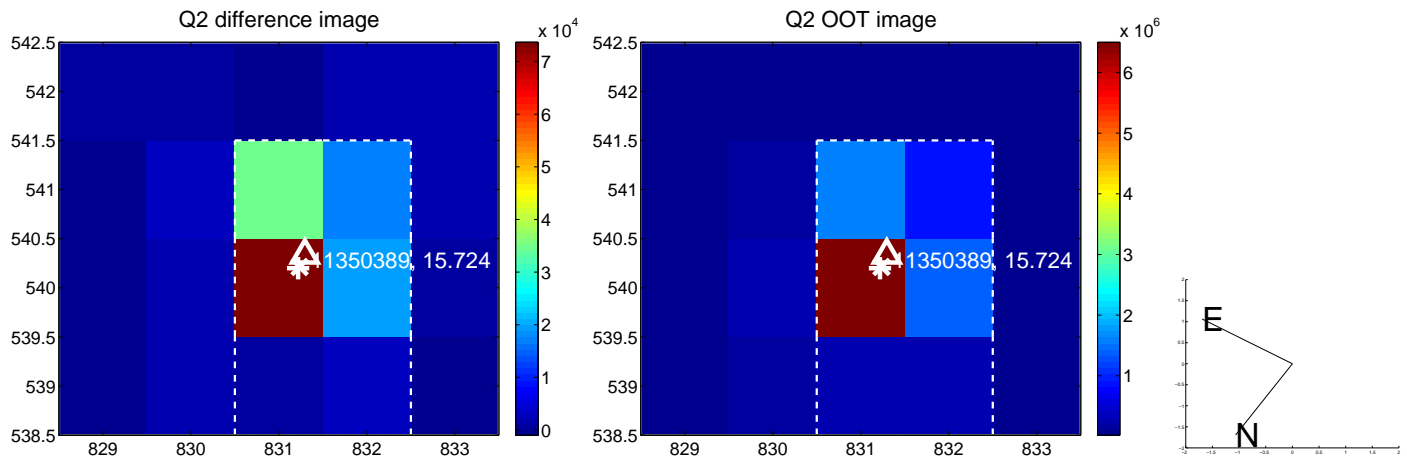
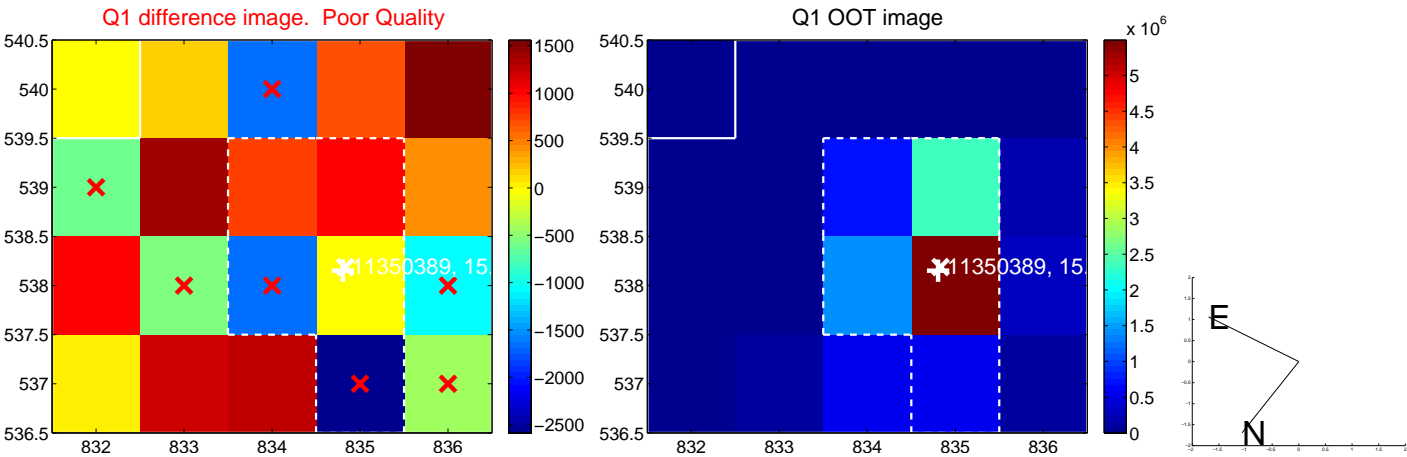
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.611 ± 0.217	2.82	0.022 ± 0.205	-0.611 ± 0.217
PRF-fit source offset from KIC position	0.532 ± 0.217	2.45	0.032 ± 0.205	-0.531 ± 0.217
photometric centroid source offset	0.78 ± 0.55	1.43	-0.36 ± 0.48	-0.69 ± 0.56

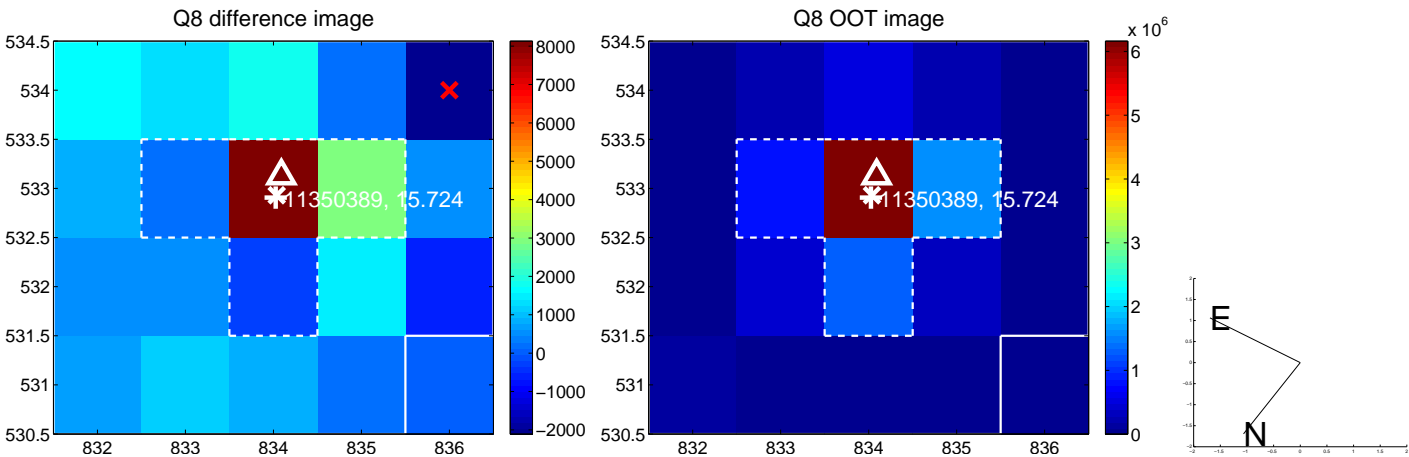
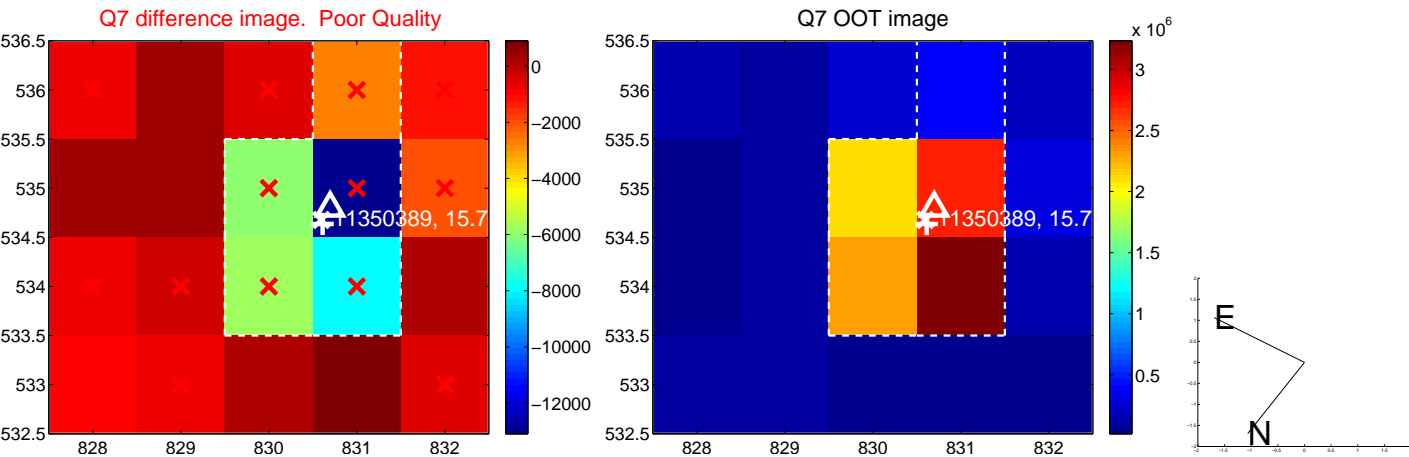
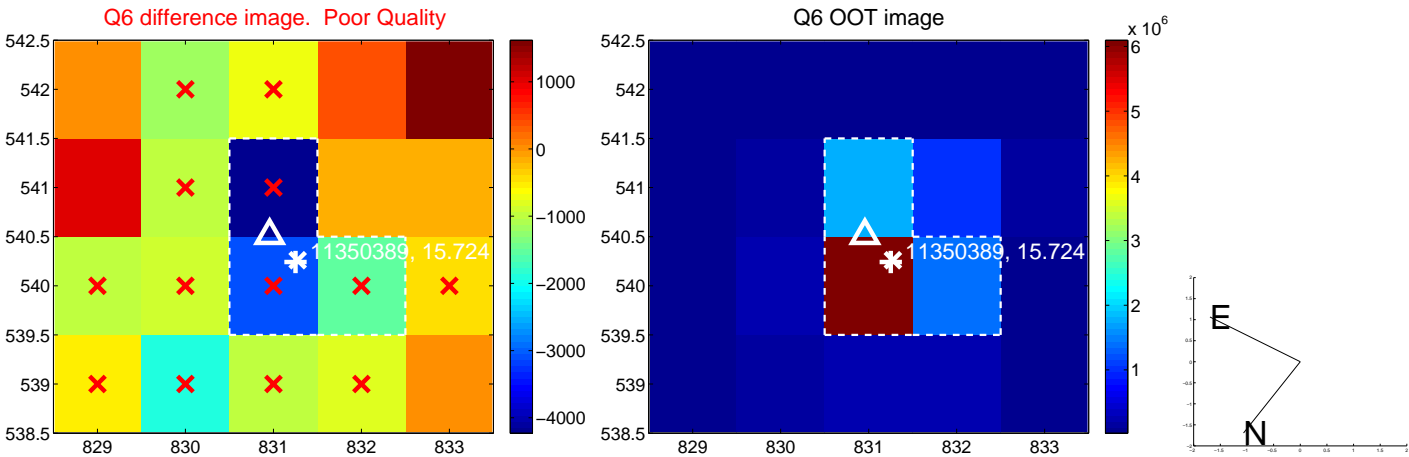
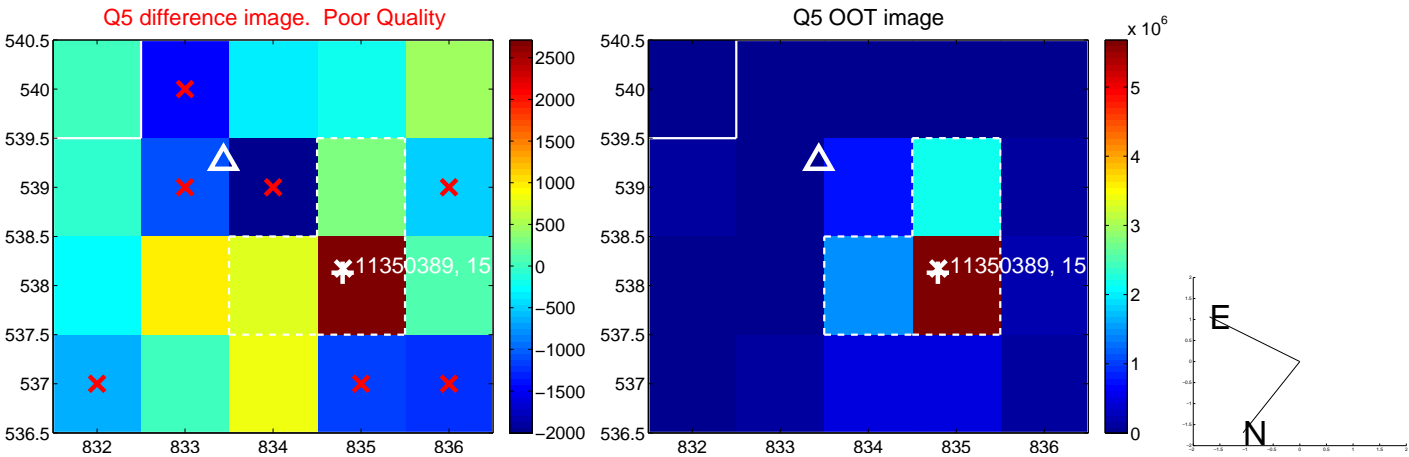


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

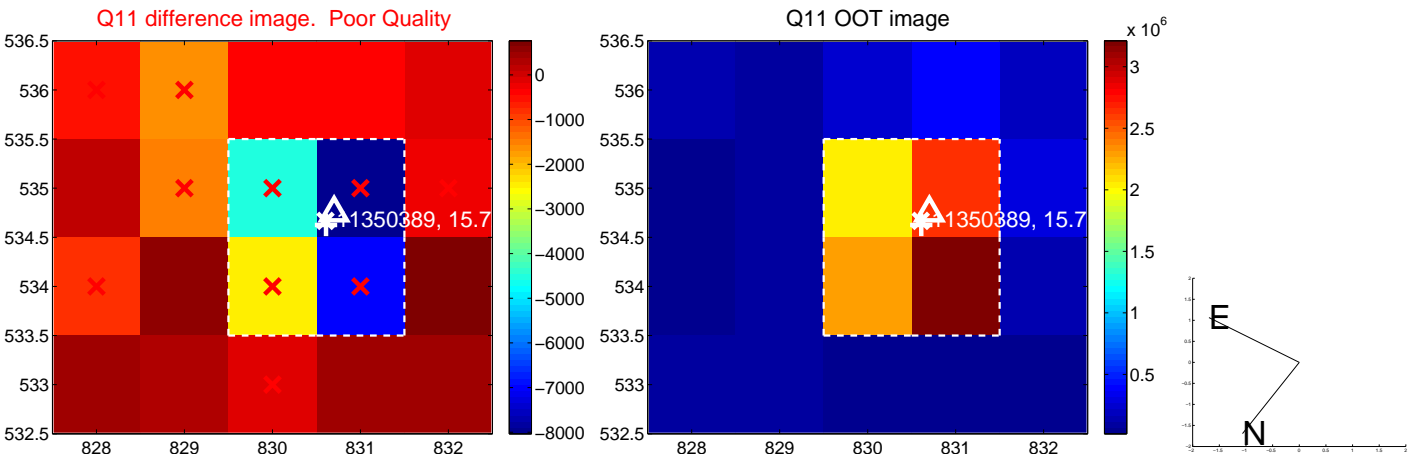
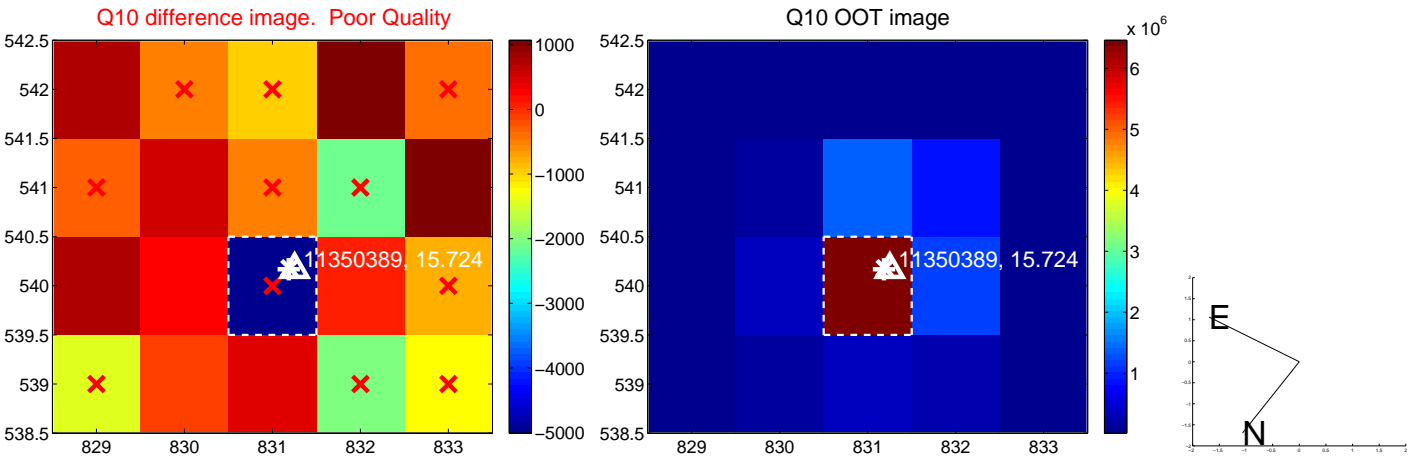
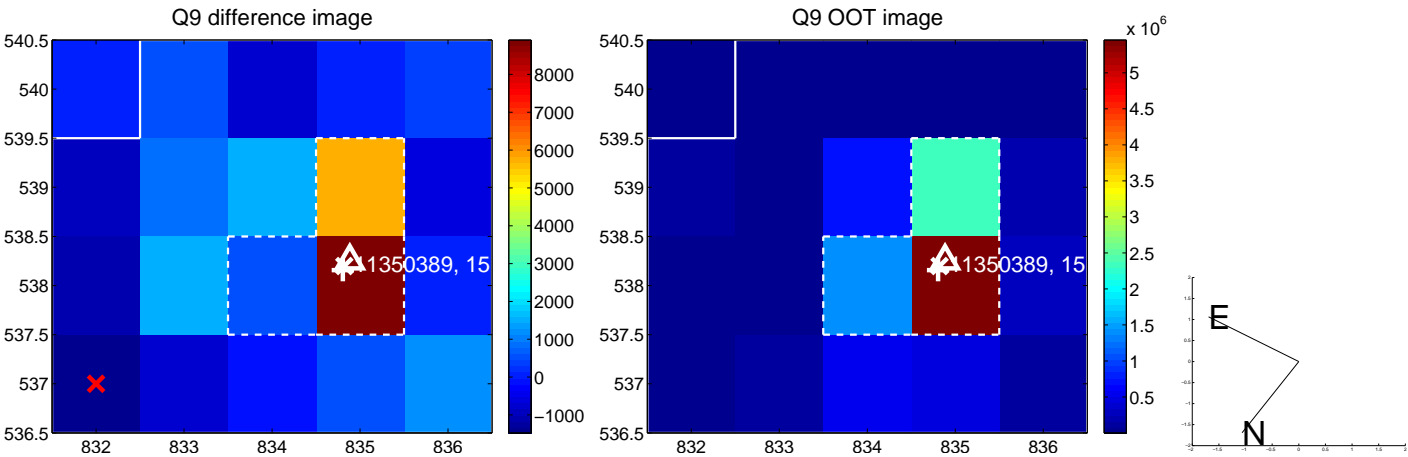
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



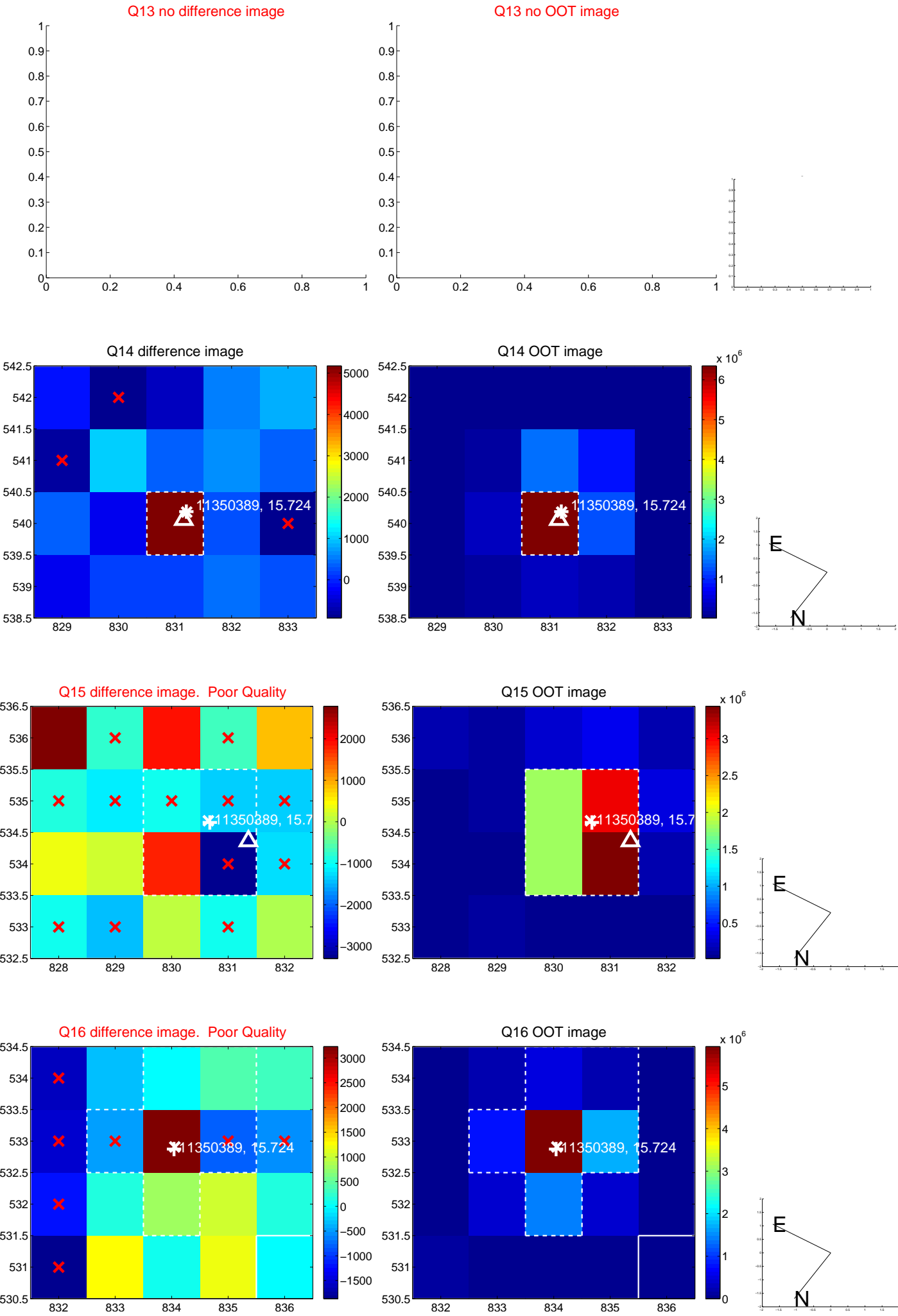
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



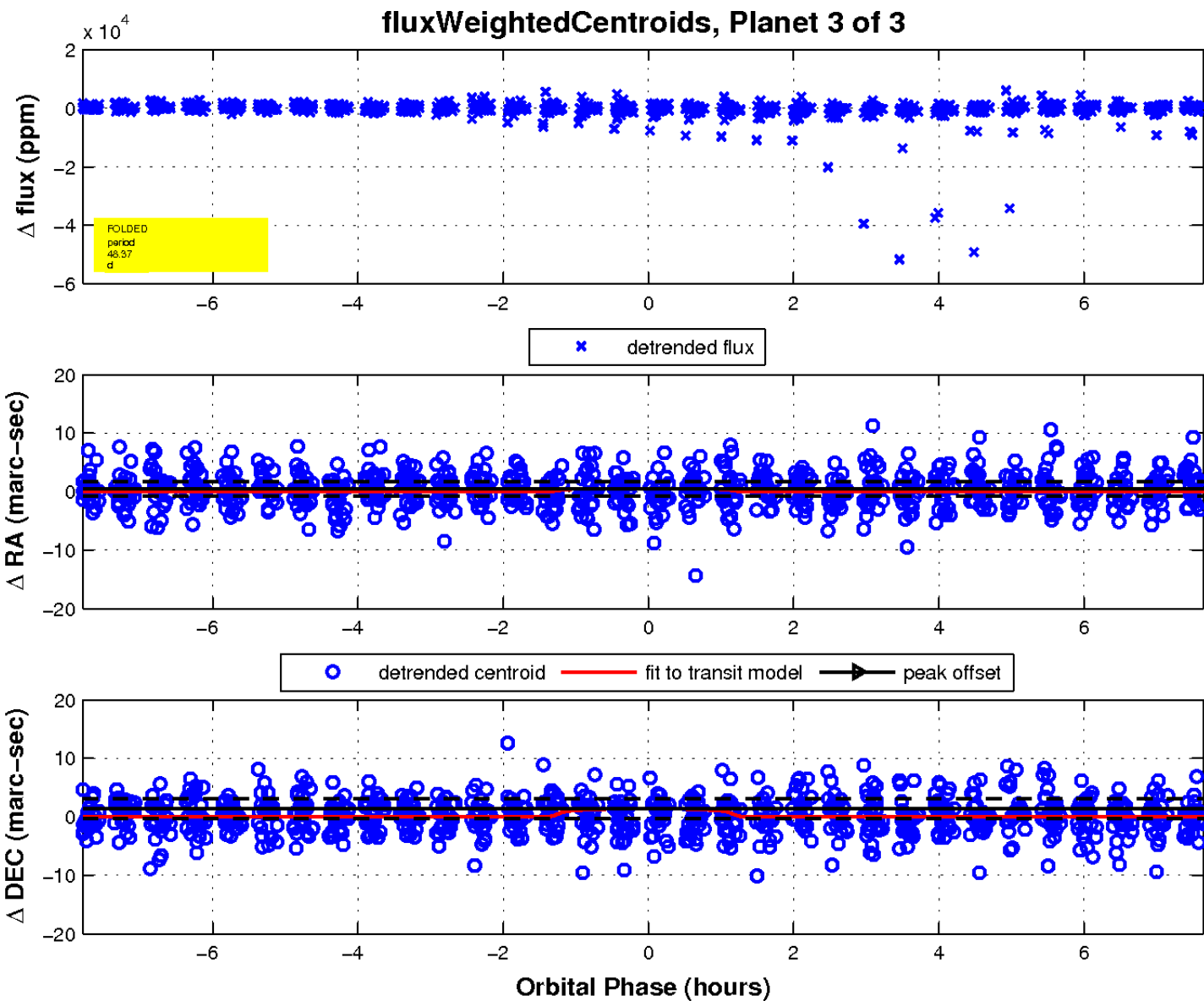
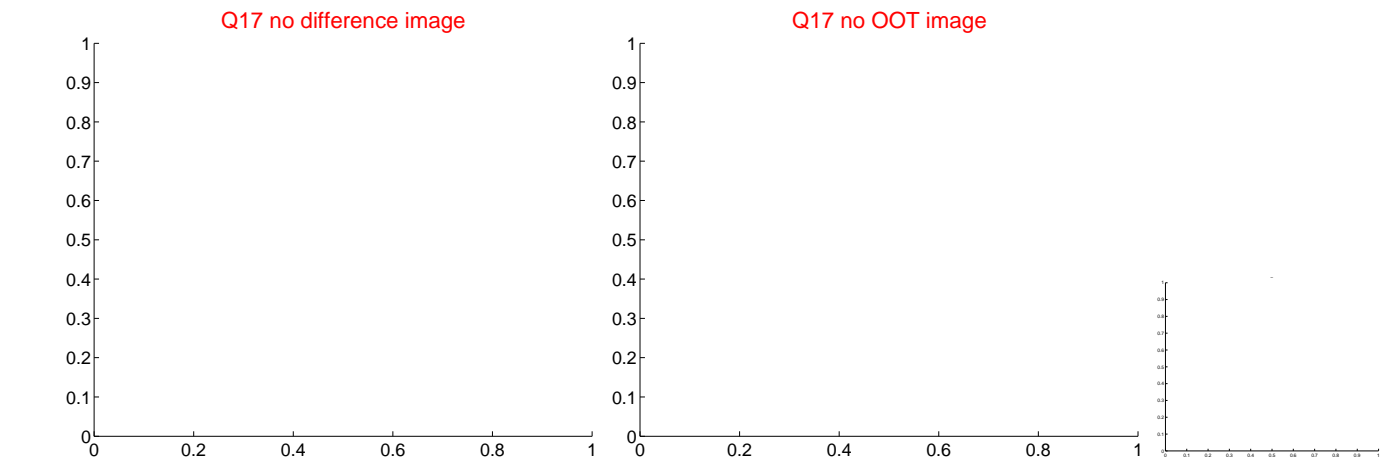
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

