

KIC 006435767

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})
006435767-01	OBS	No	0.594460	131.996753	56.4	2.142	9.0	13.2	0.77	5395	0.69	2624.36
006435767-02	OBS	No	202.584637	166.818185	326.9	7.992	9.6	3.5	0.77	5395	1.64	1.10
006435767-03	OBS	No	257.440263	204.073968	393.6	8.037	9.3	5.0	0.77	5395	1.62	0.80
006435767-04	OBS	No	0.594434	131.705029	31.9	3.492	8.2	8.8	0.77	5395	0.43	2624.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006435767-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
006435767-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_FEW_DIFFS
006435767-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006435767-04	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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

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

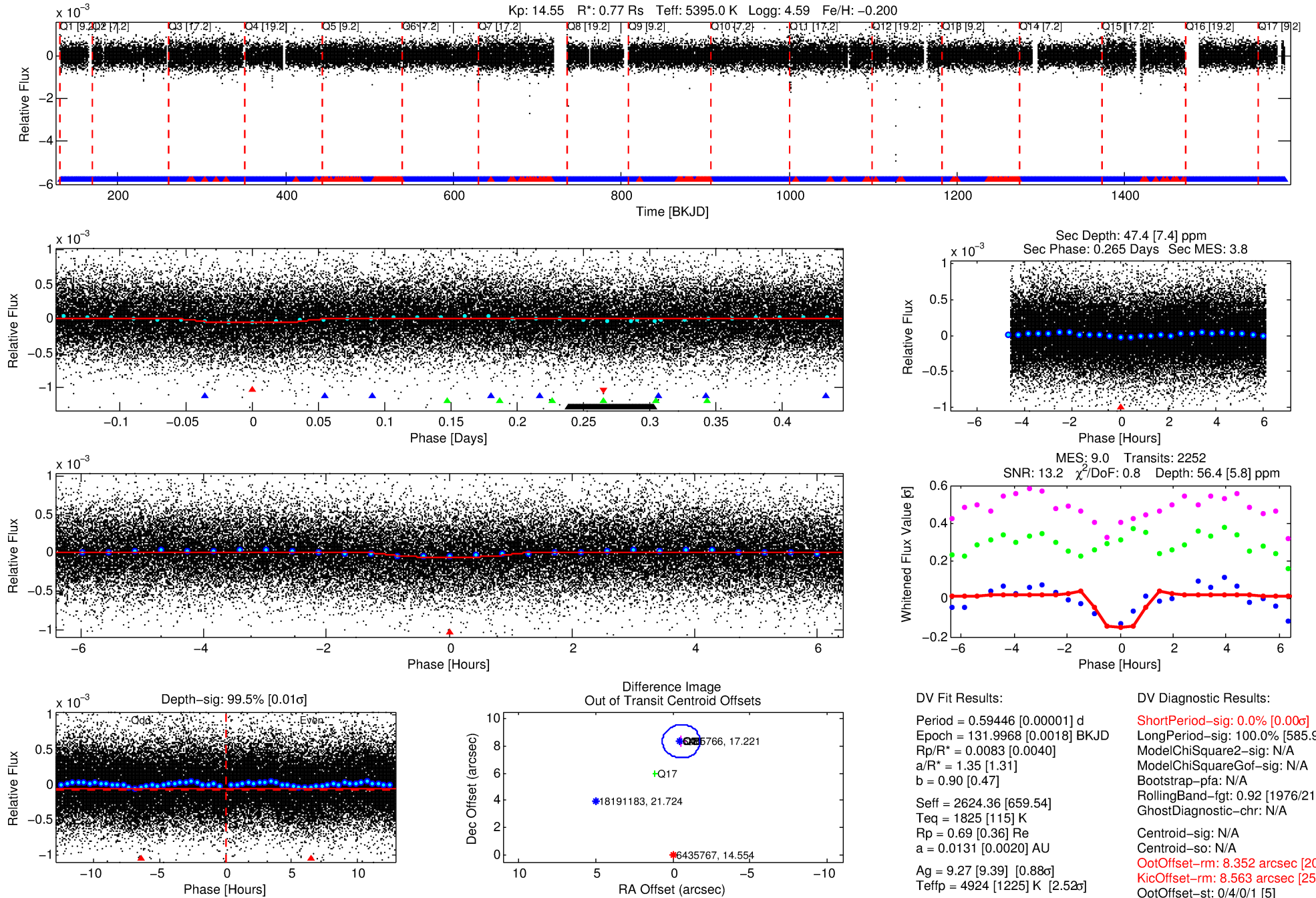
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006435767-01

No Significant Match Found

DV One-Page Summary

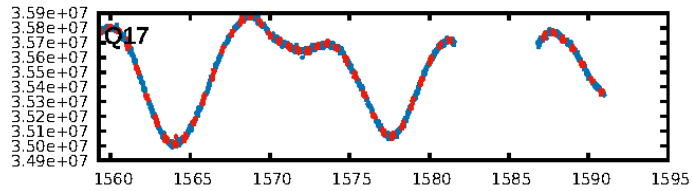
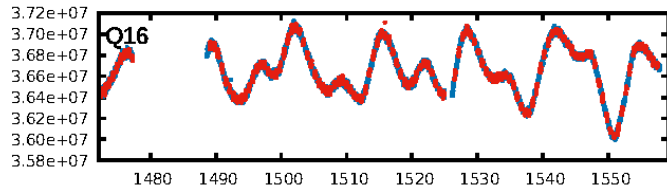
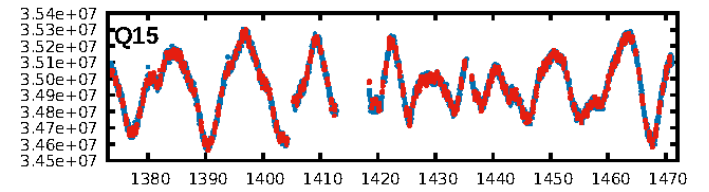
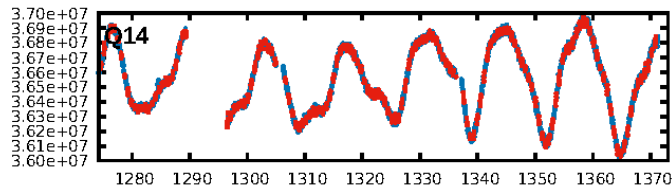
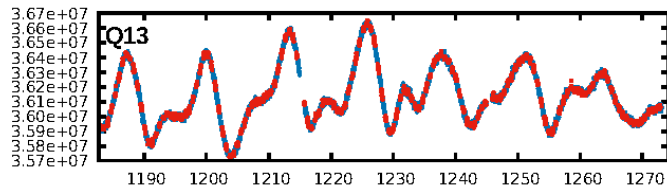
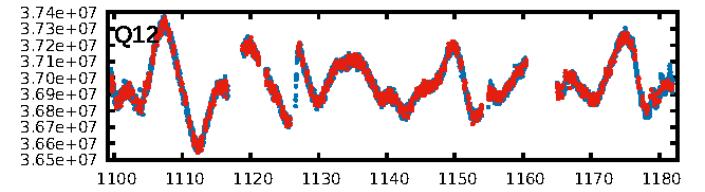
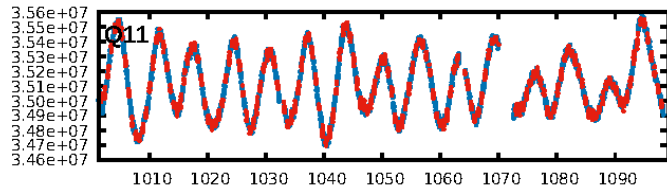
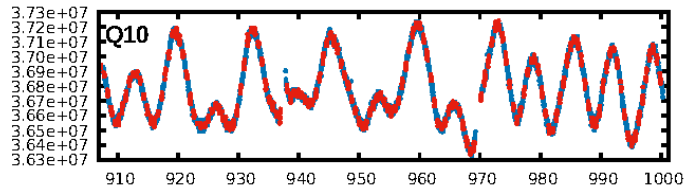
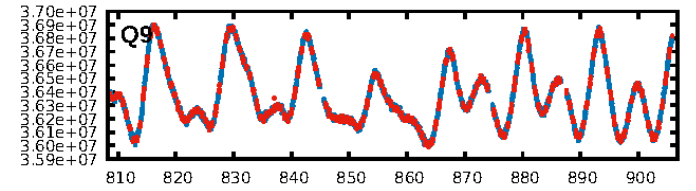
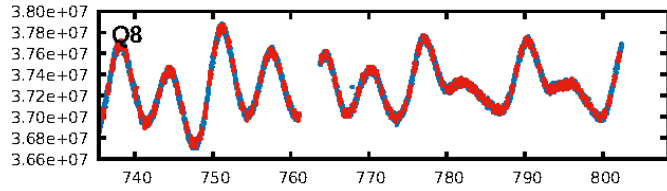
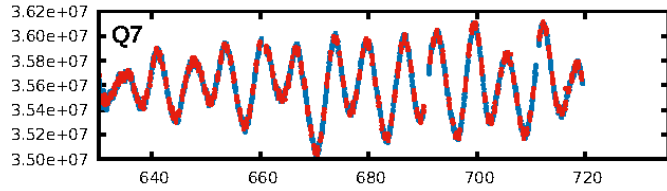
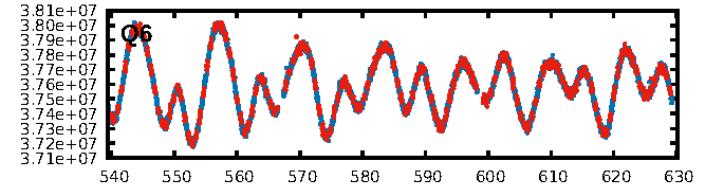
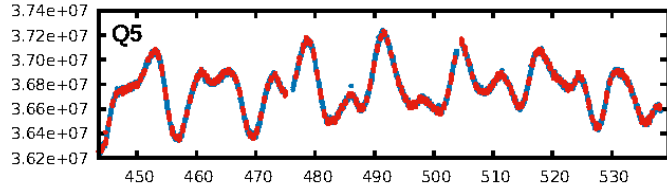
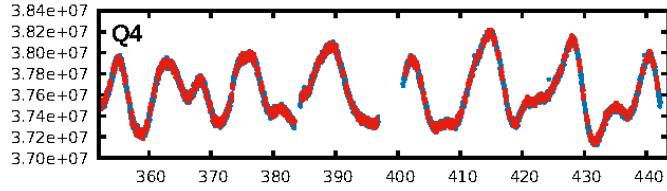
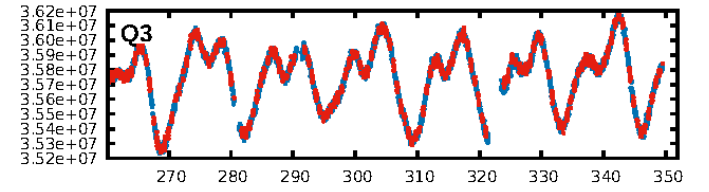
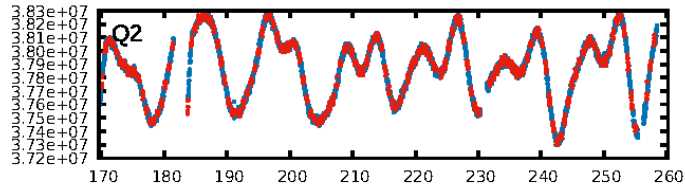
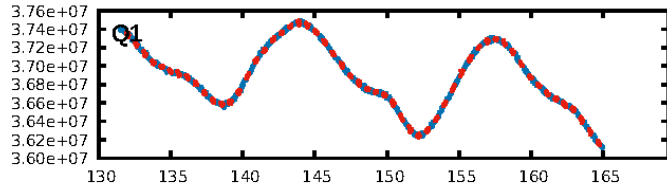
KIC: 6435767 Candidate: 1 of 4 Period: 0.594 d



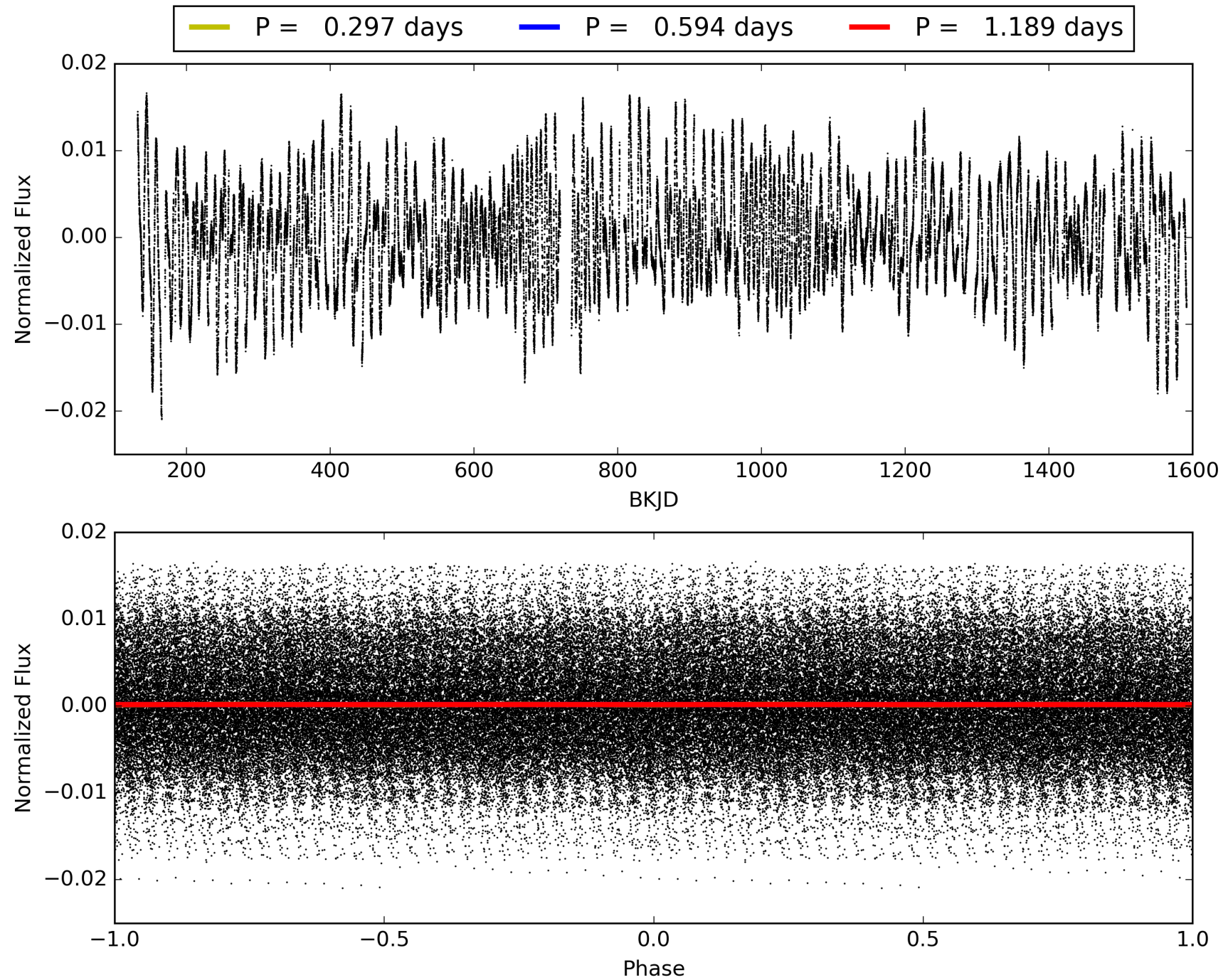
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006435767-01, PDC Light Curves

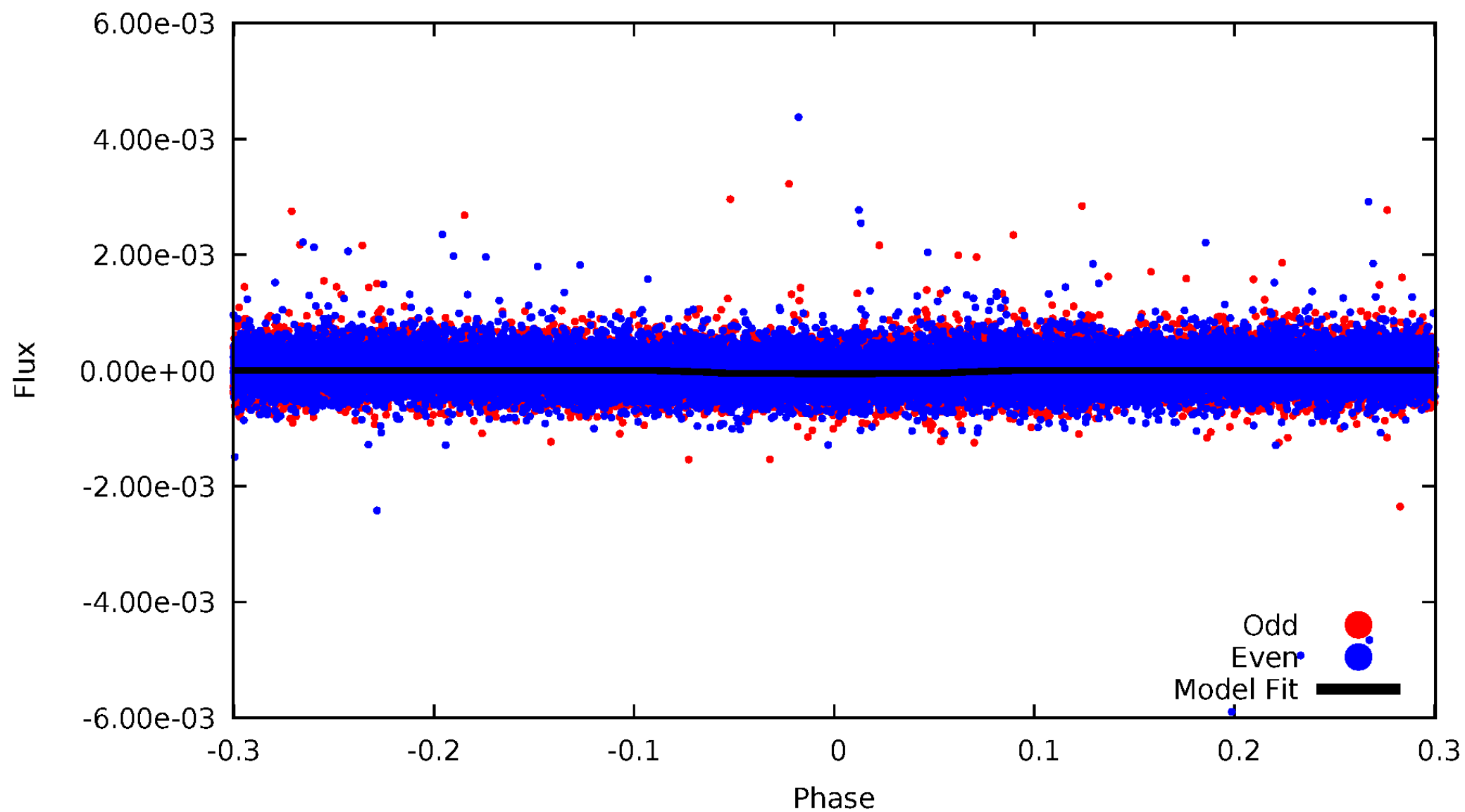


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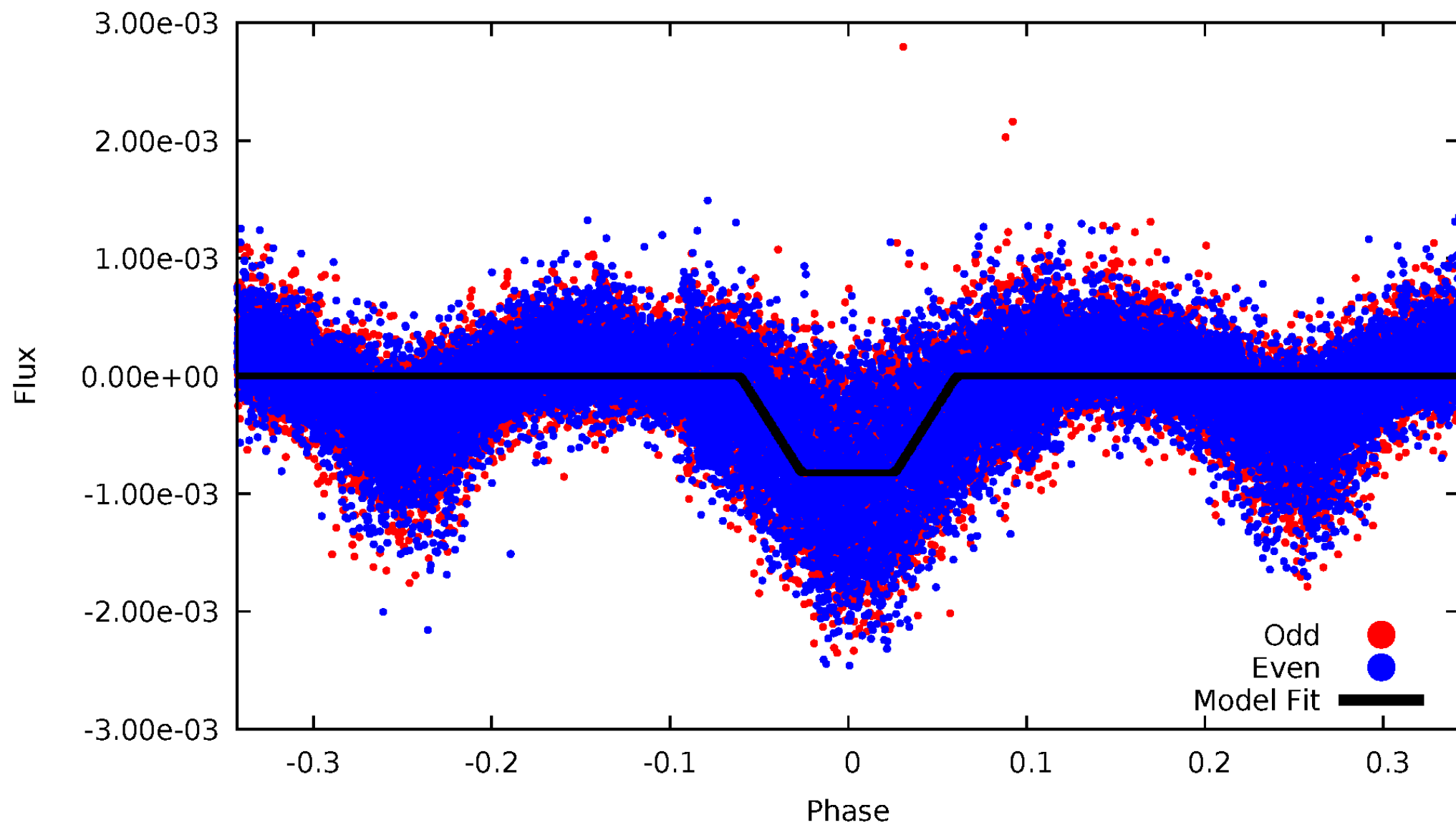
DV Odd/Even

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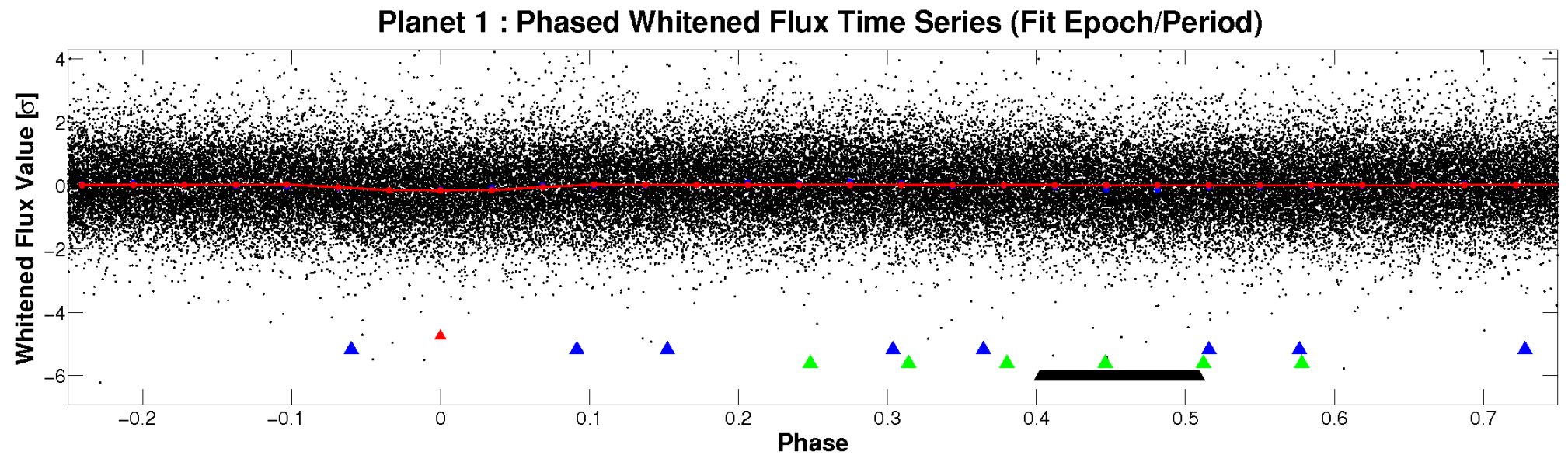
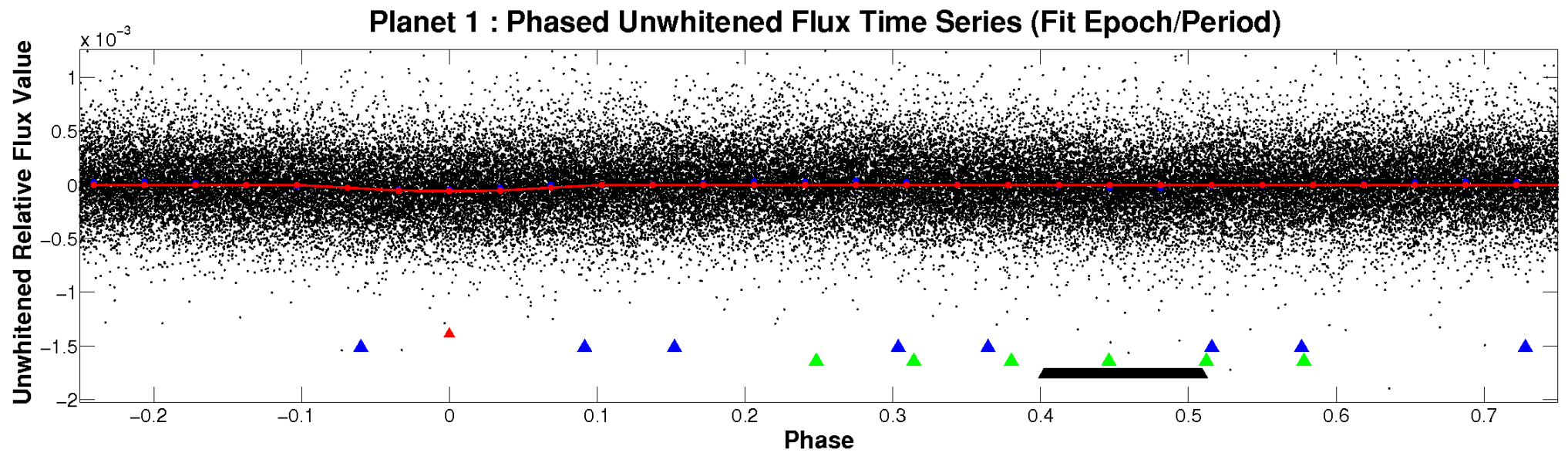


ALT Odd/Even

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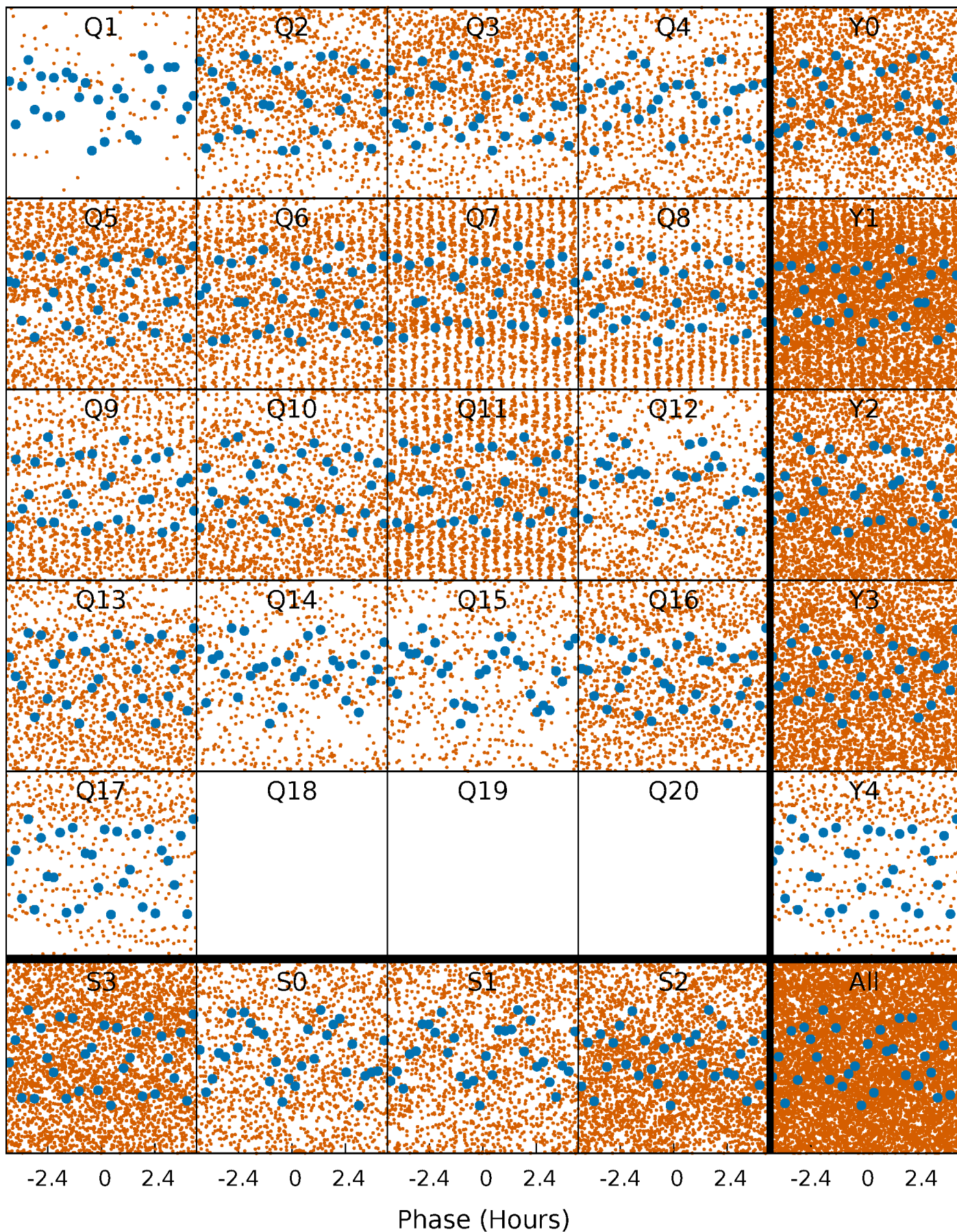


Non-Whitened Vs. Whitened Light Curve



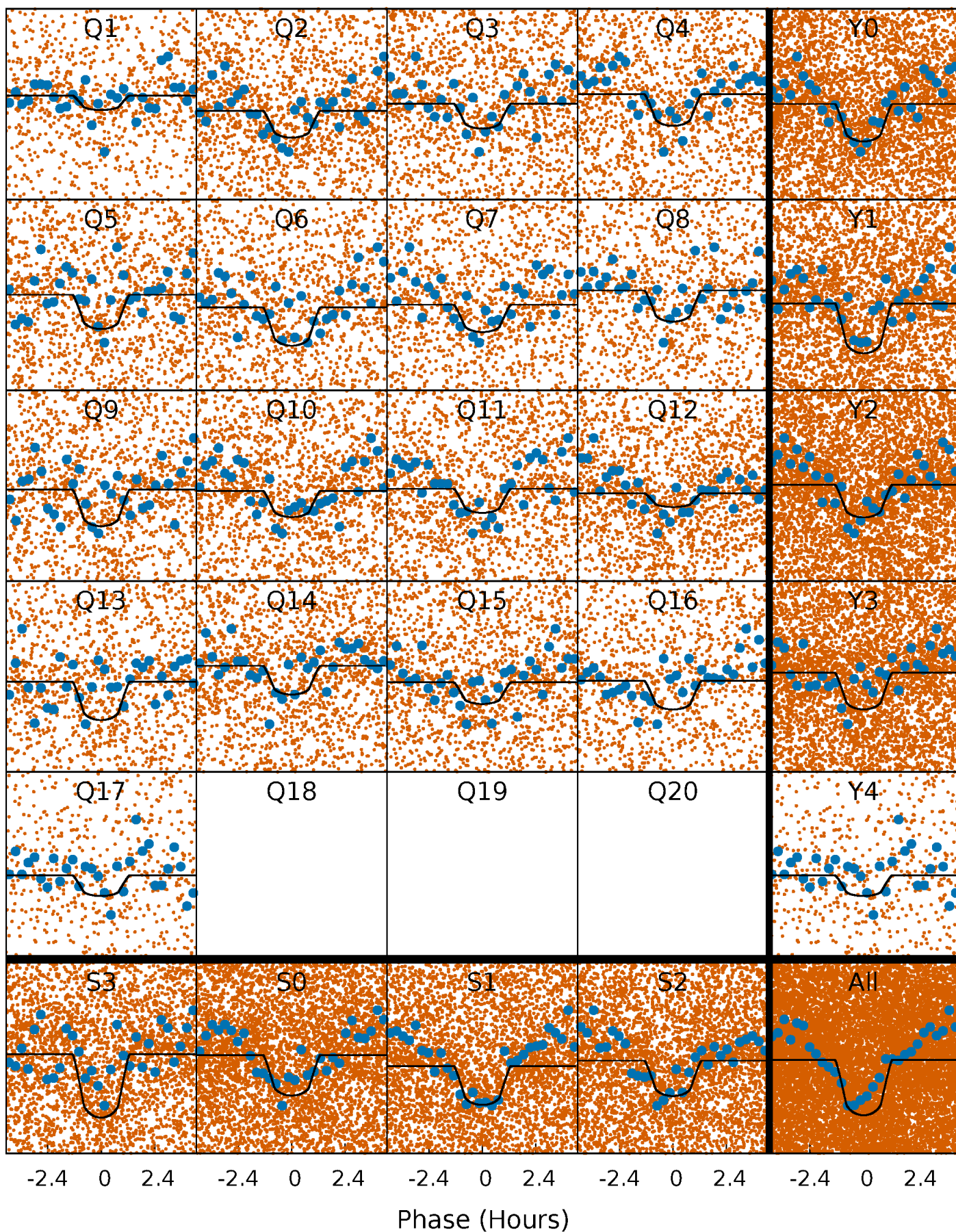
PDC Quarter-Phased Transit Curves

TCE 006435767-01 P= 0.594460 Days $T_0=131.996753$ (BKJD)



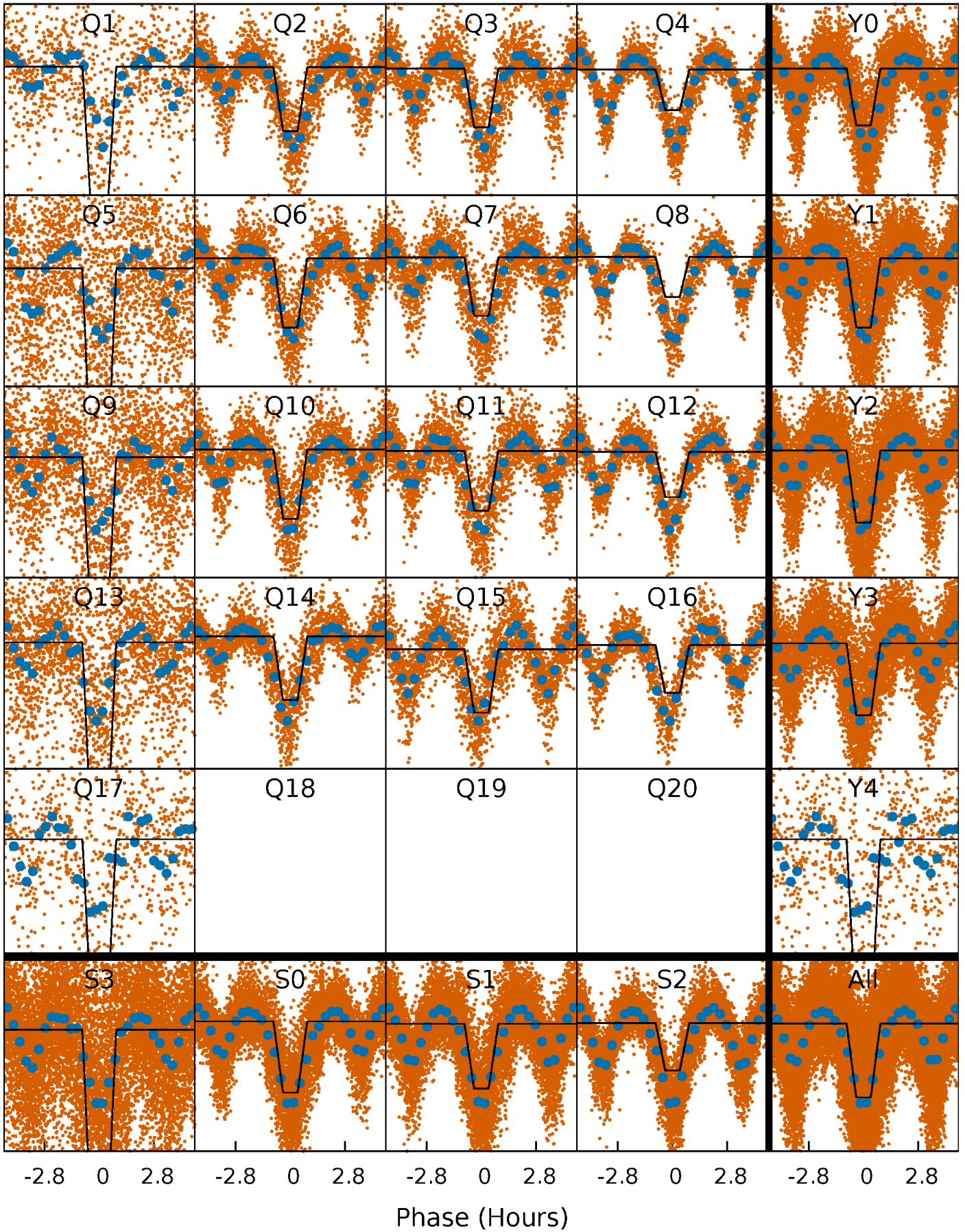
DV Quarter-Phased Transit Curves

TCE 006435767-01 P= 0.594460 Days $T_0=131.996753$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

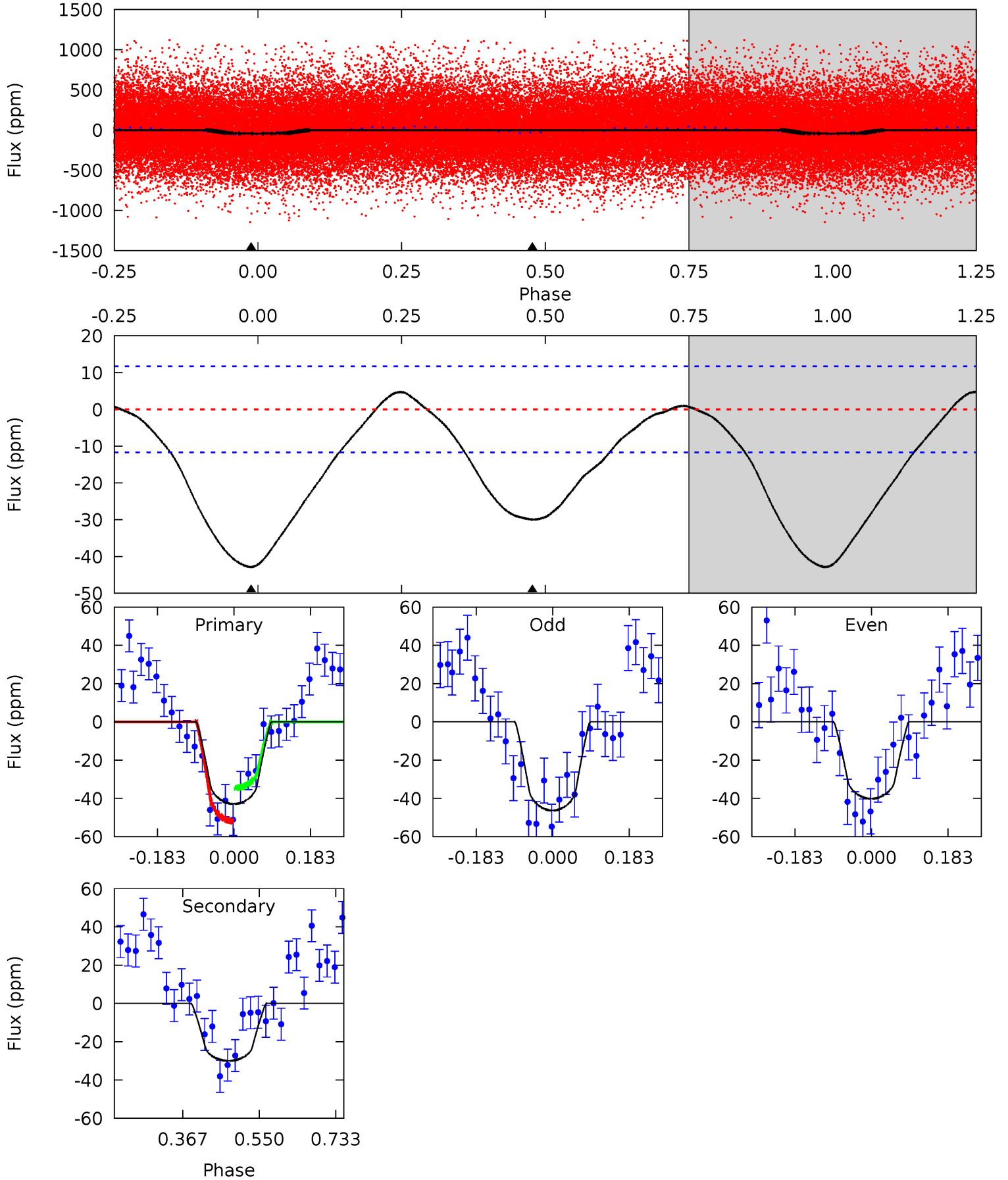
TCE 006435767-01 P= 0.594446 Days $T_0=131.997854$ (BKJD)



DV Model-Shift Uniqueness Test

006435767-01, P = 0.594460 Days, E = 131.402293 Days

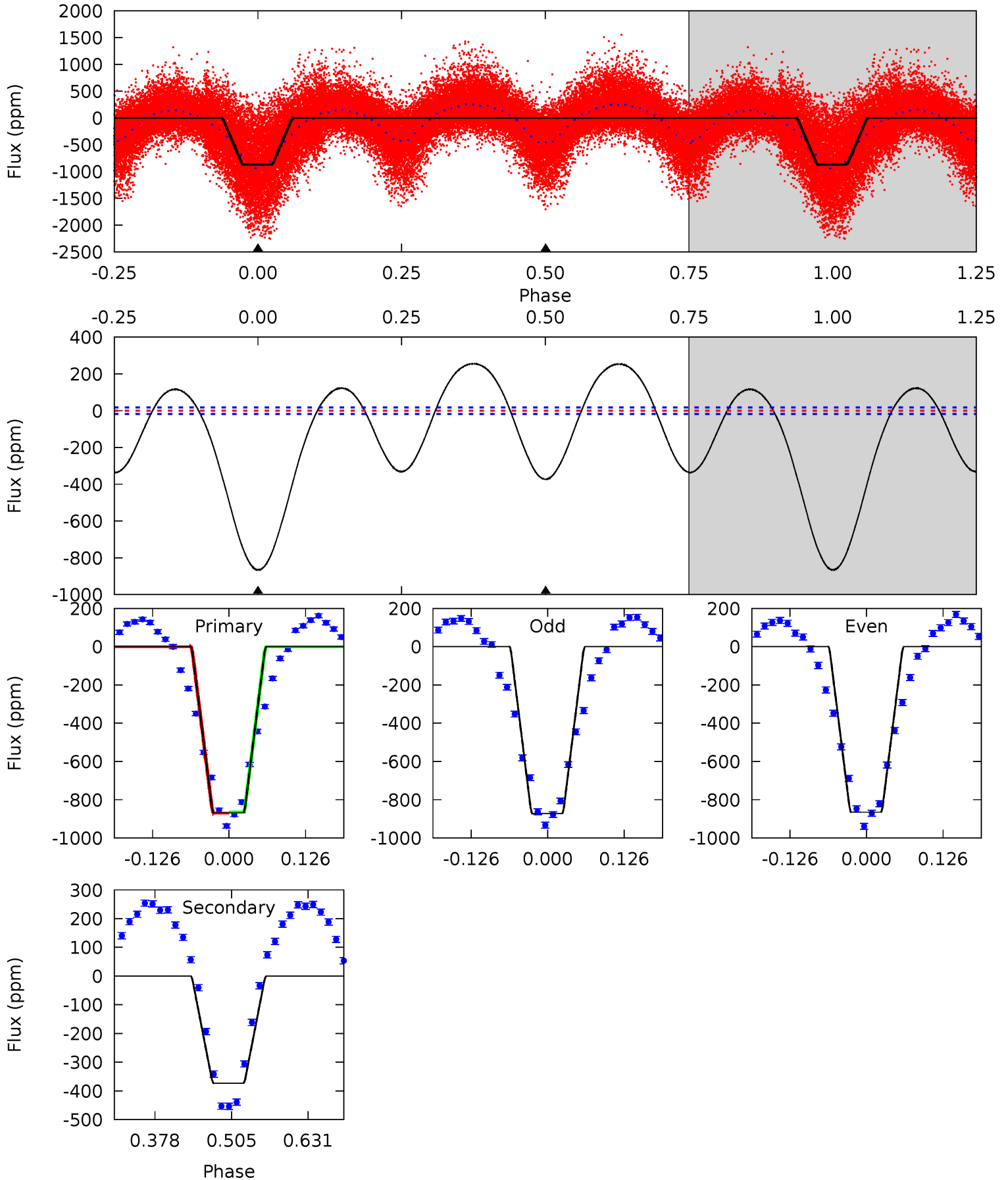
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	11.4	0	0	4.44	1.33	0.99	16.3	16.3	11.4	11.4	1.17	0.94	0.10	3.30



Alt Model-Shift Uniqueness Test

006435767-01, P = 0.594446 Days, E = 131.403408 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
218.6	93.9	0	0	4.52	1.53	48.3	218.6	218.6	93.9	93.9	0.88	0.98	0.23	0.64



Stellar Parameters For KIC 006435767

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5395^{+159}_{-143}	$4.593^{+0.037}_{-0.120}$	$-0.200^{+0.300}_{-0.300}$	$0.770^{+0.143}_{-0.061}$	$0.859^{+0.078}_{-0.096}$	$2.654^{+0.453}_{-1.003}$
	+3%/-3%	+1%/-3%	+150%/-150%	+19%/-8%	+9%/-11%	+17%/-38%
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 006435767-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-30 ± 3	$0.74^{+0.34}_{-0.35}$	2586^{+122}_{-105}	4447^{+1455}_{-633}	$5.261^{+13.453}_{-2.830}$
Alt.	-373 ± 4	$2.48^{+0.43}_{-0.37}$	2593^{+128}_{-97}	4519^{+344}_{-252}	$5.649^{+2.197}_{-1.509}$

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 $A_{\text{obs}} \gg 1.0$

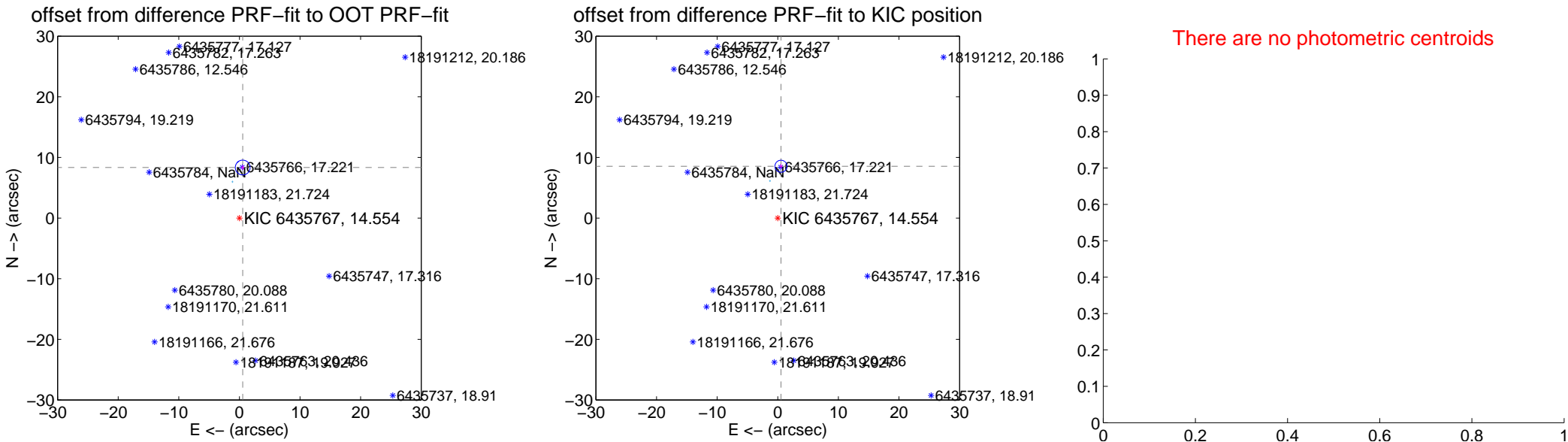
DV Centroid Data

Supplemental centroid analysis for 006435767-01. Kepler magnitude: 14.55. Transit SNR 13.16

There are 5 quarters with good PRF difference image offsets

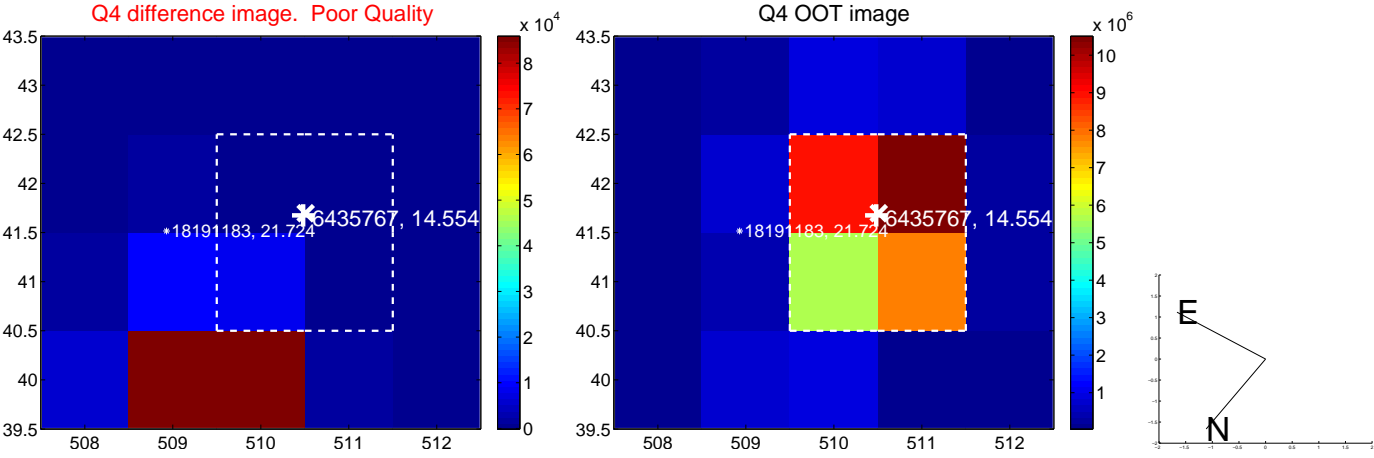
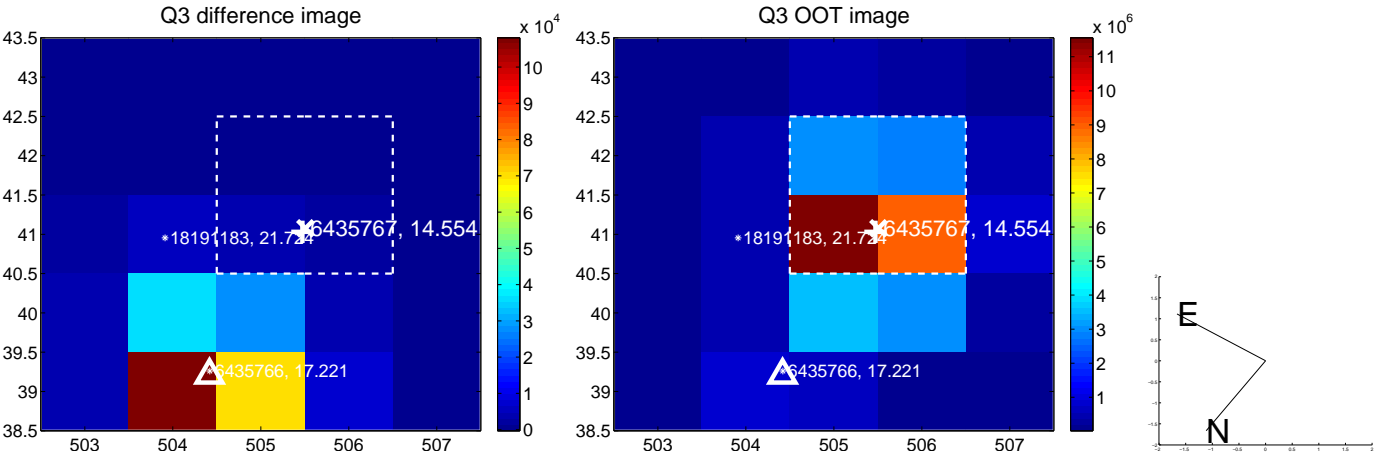
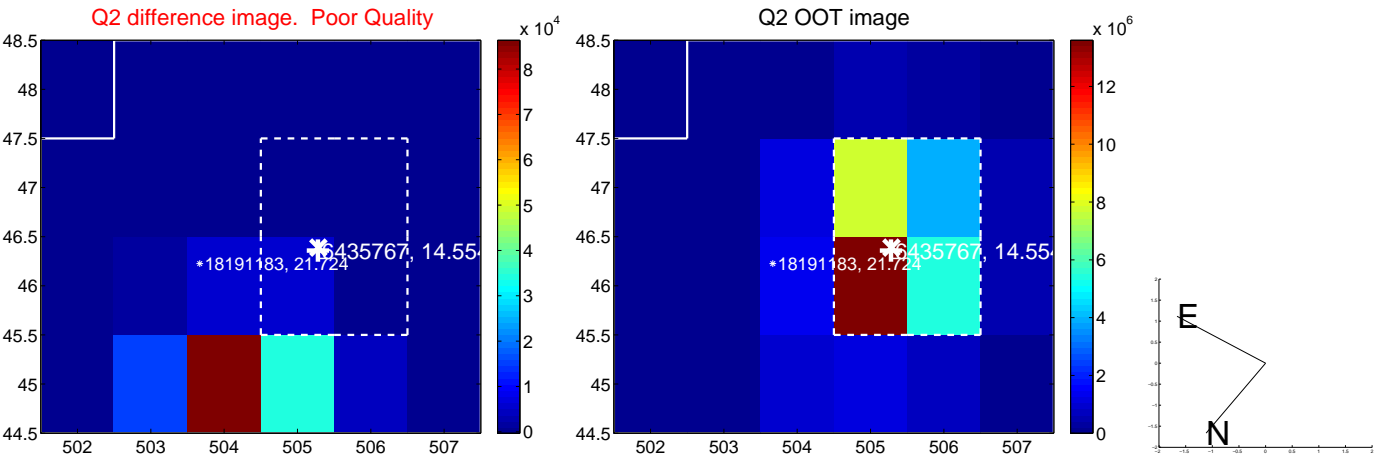
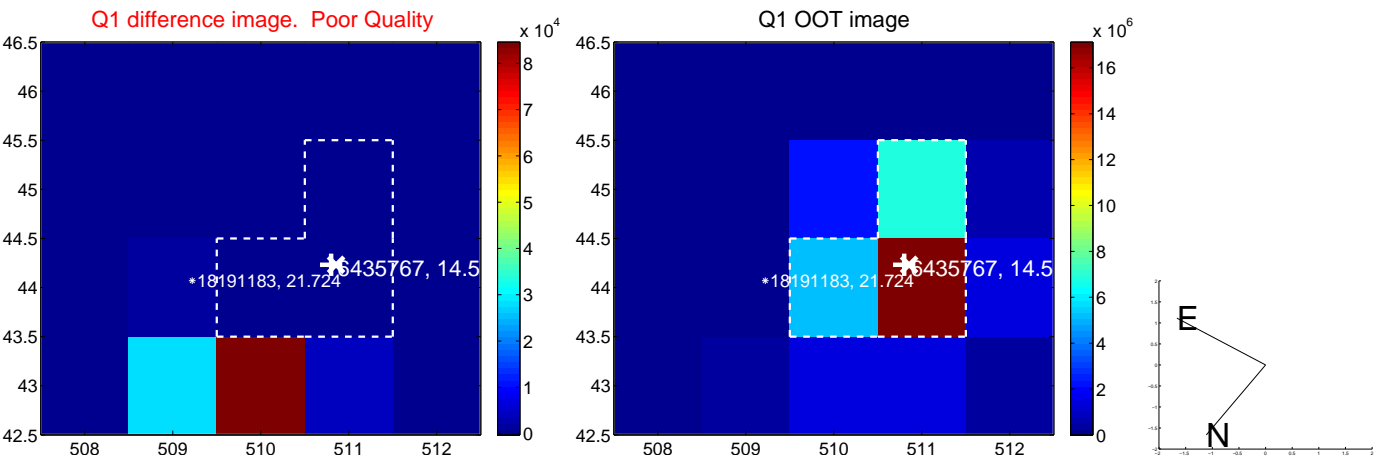
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.352 \pm 0.407	20.52	-0.544 \pm 0.277	8.335 \pm 0.391
PRF-fit source offset from KIC position	8.563 \pm 0.331	25.86	-0.530 \pm 0.247	8.547 \pm 0.317
photometric centroid source offset	—	—	—	—

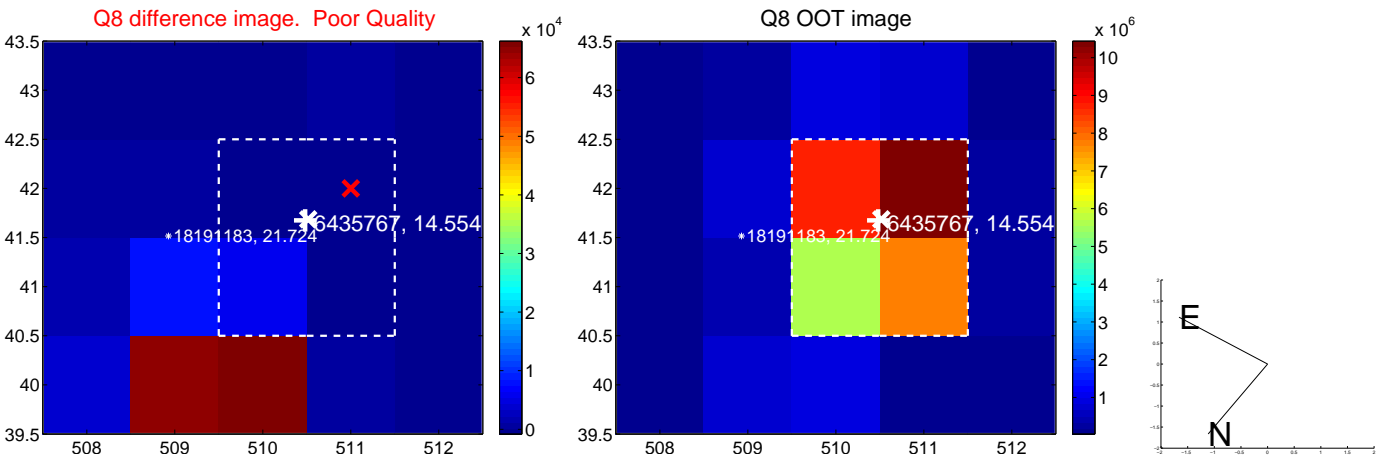
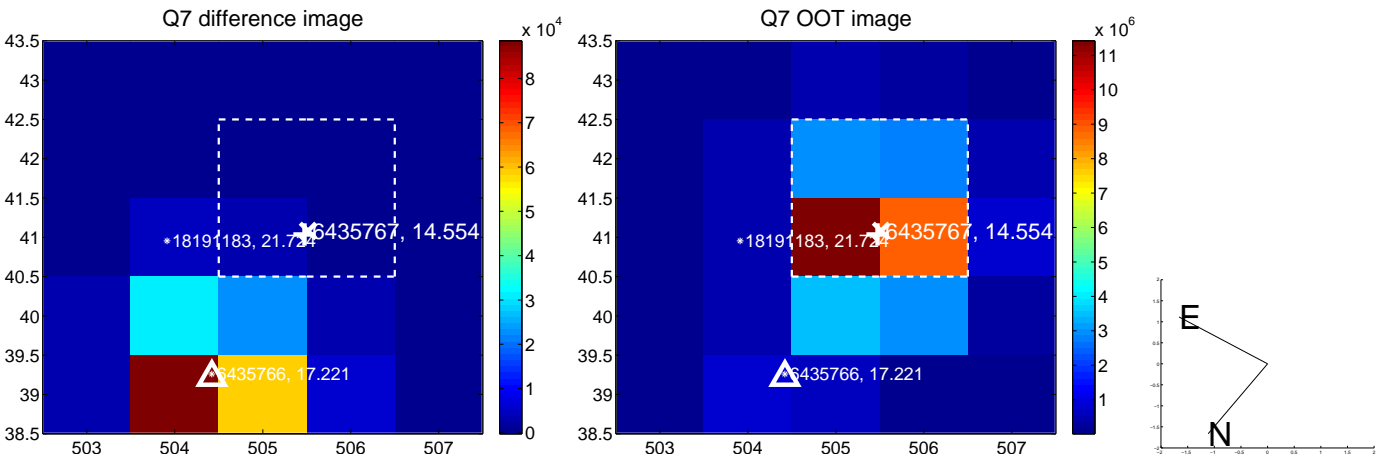
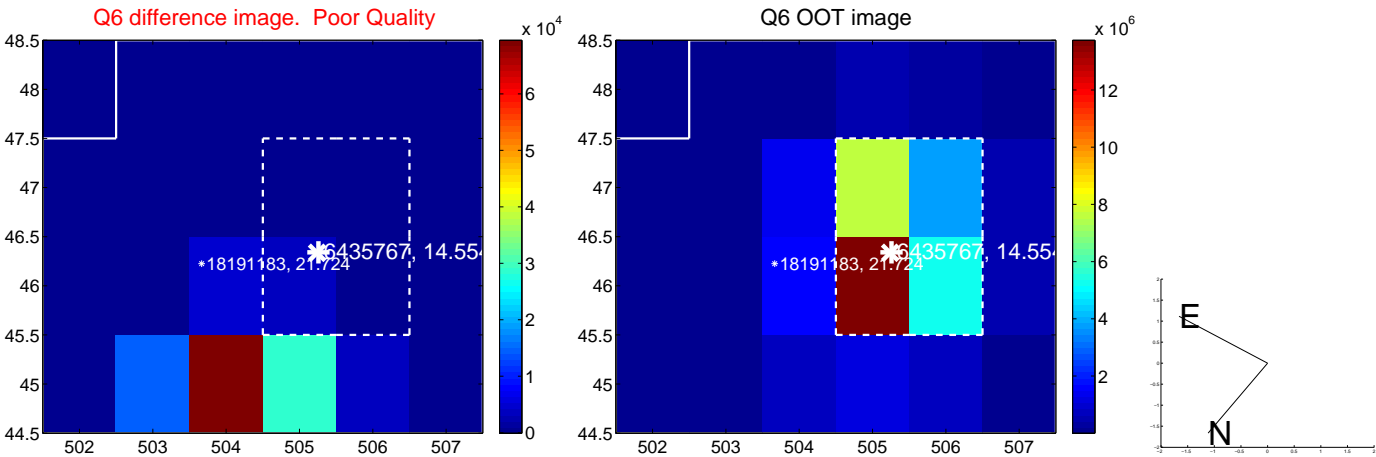
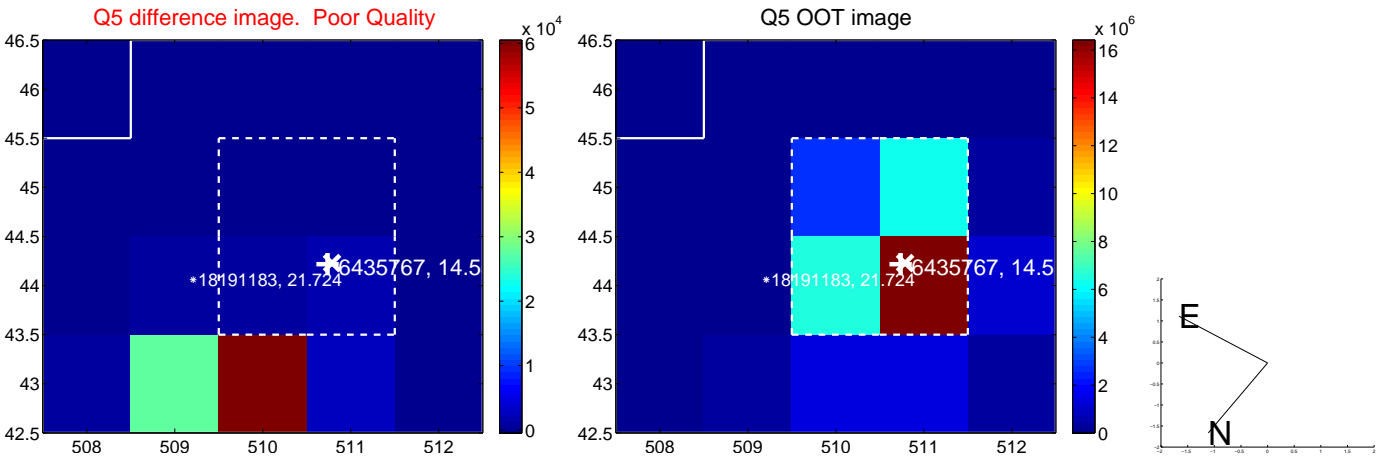


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

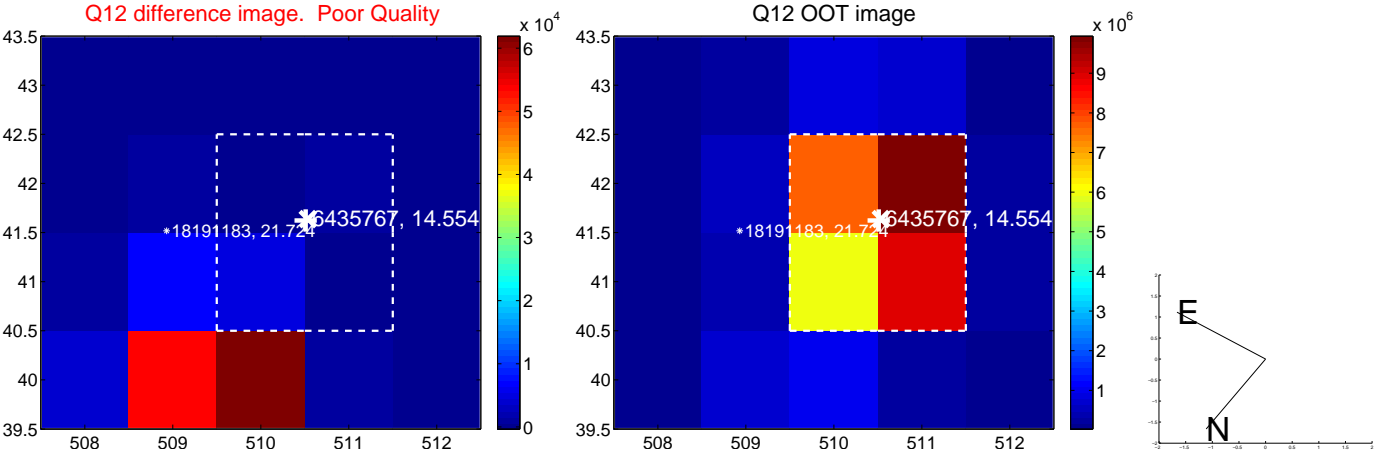
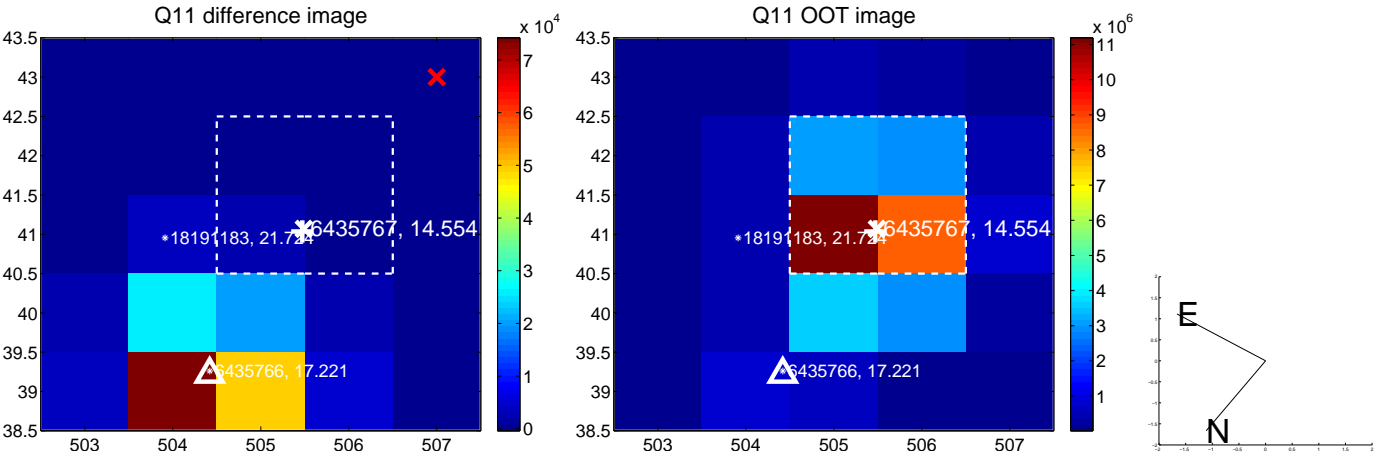
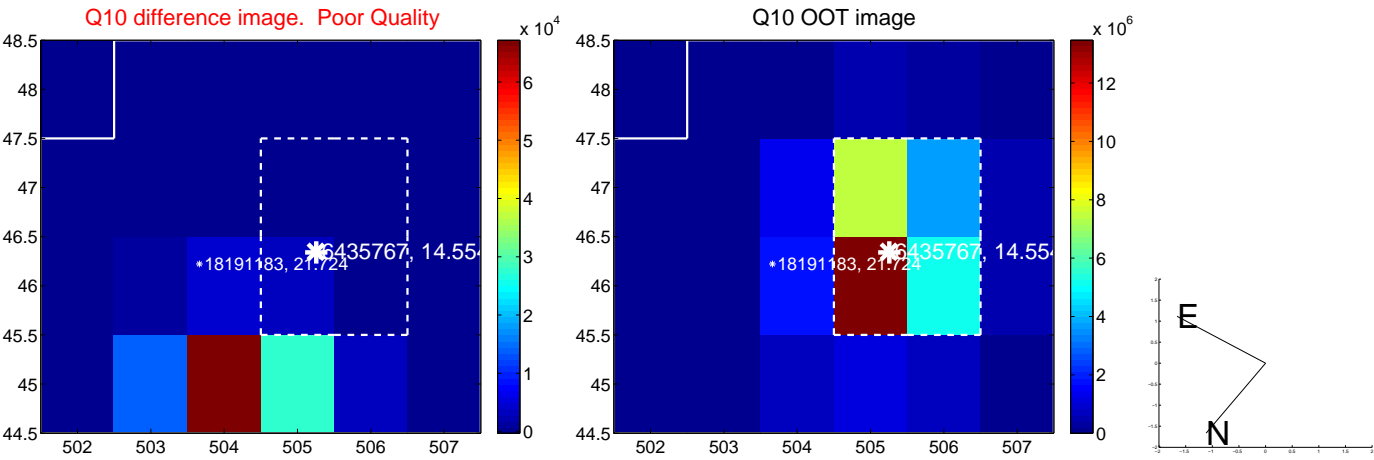
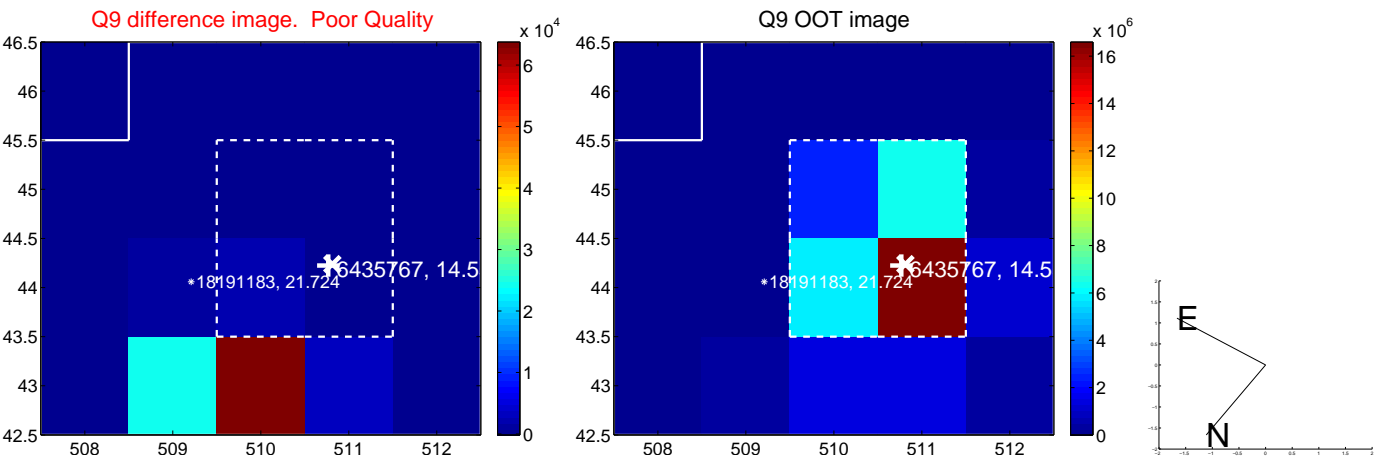
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



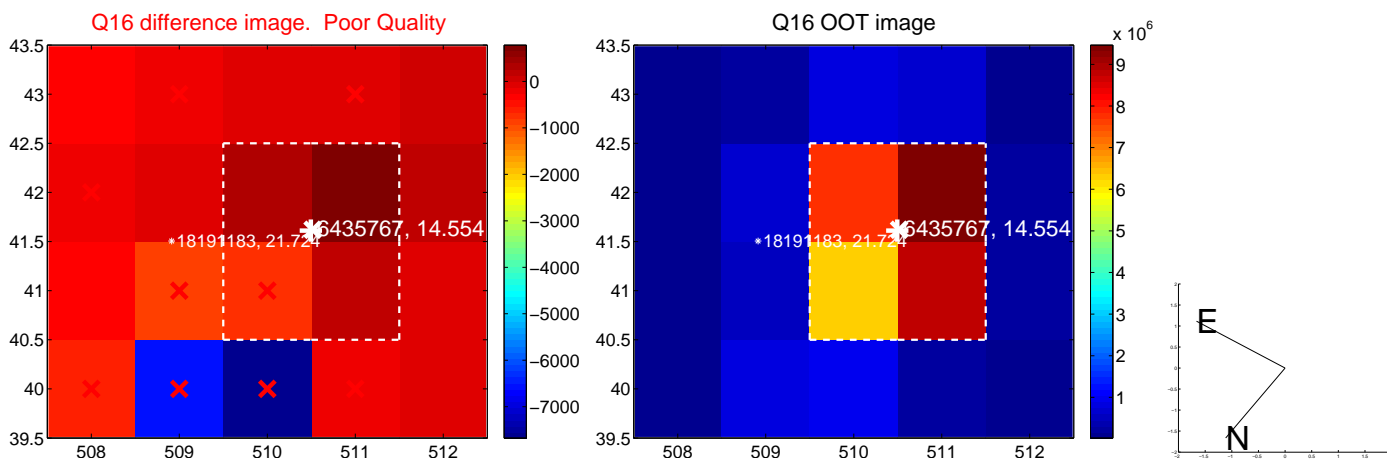
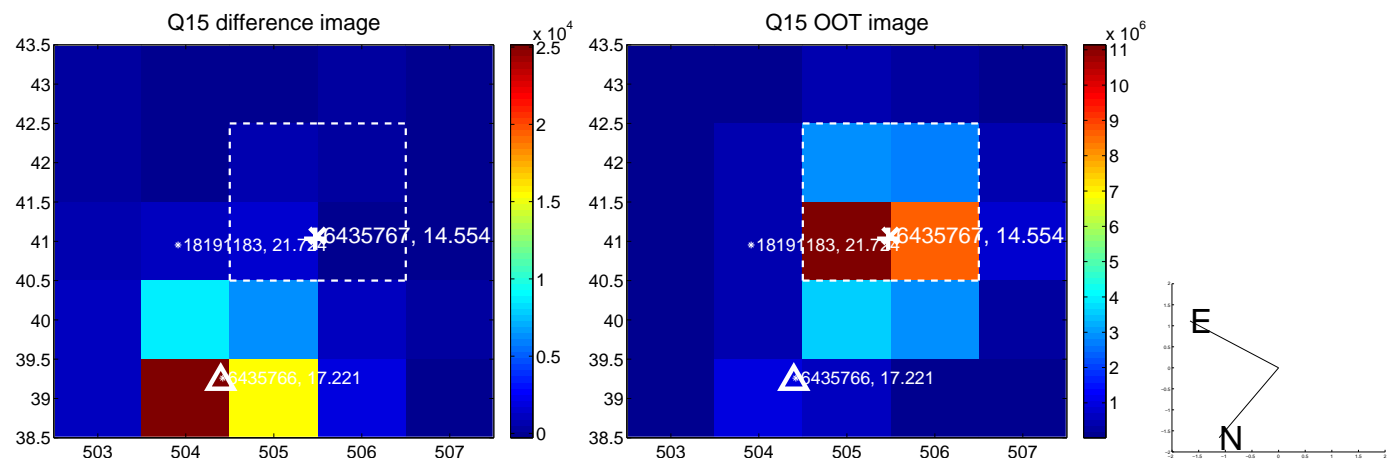
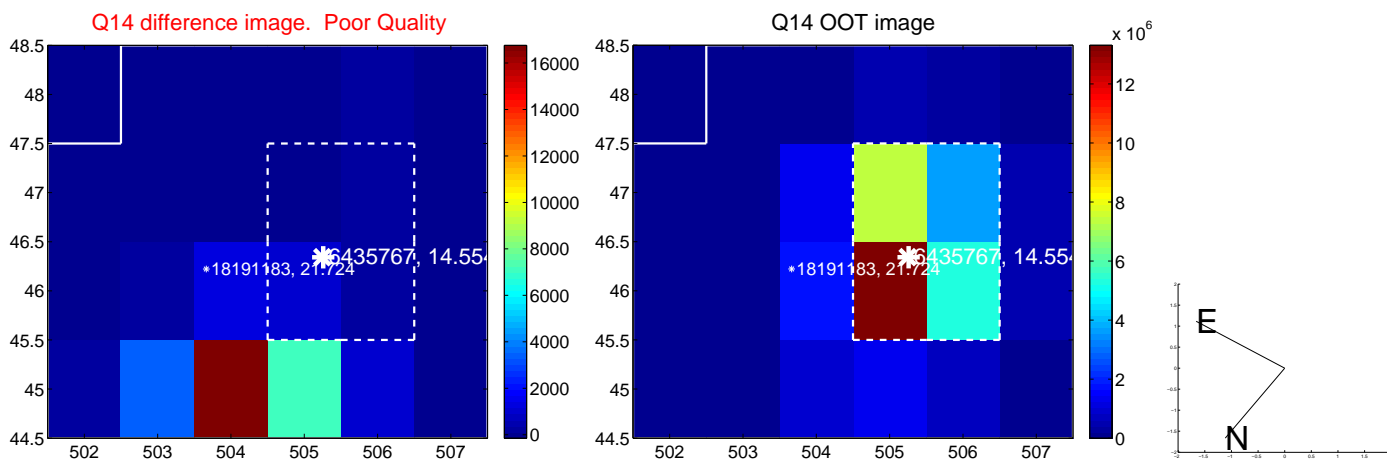
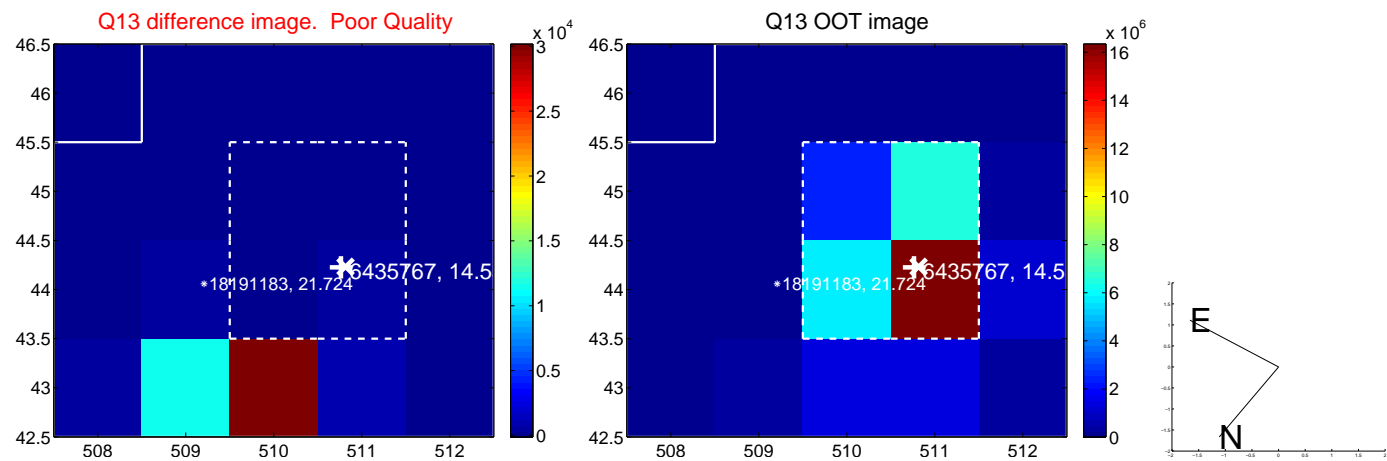
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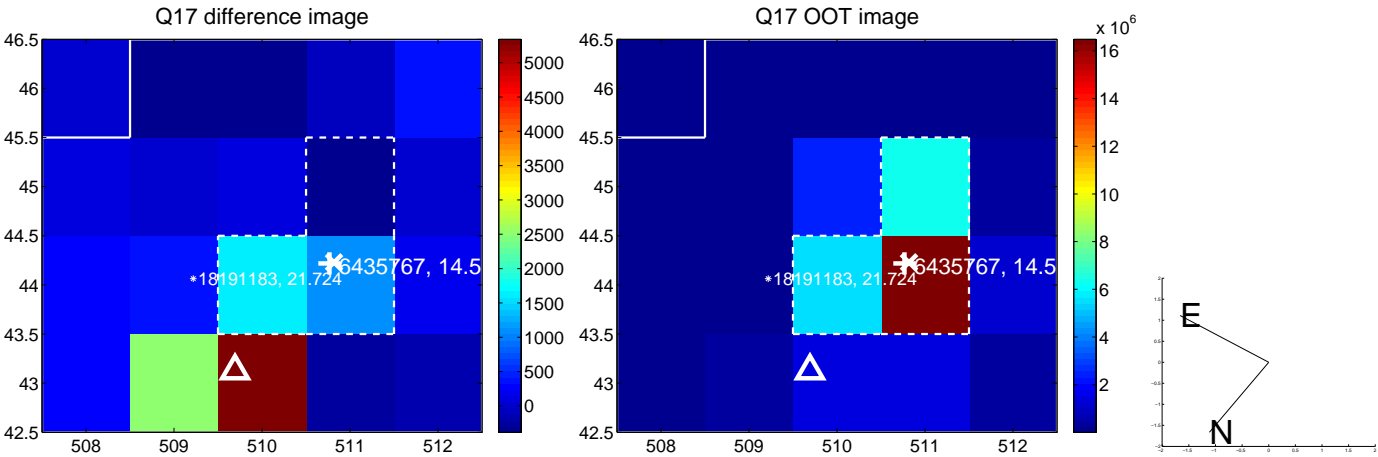
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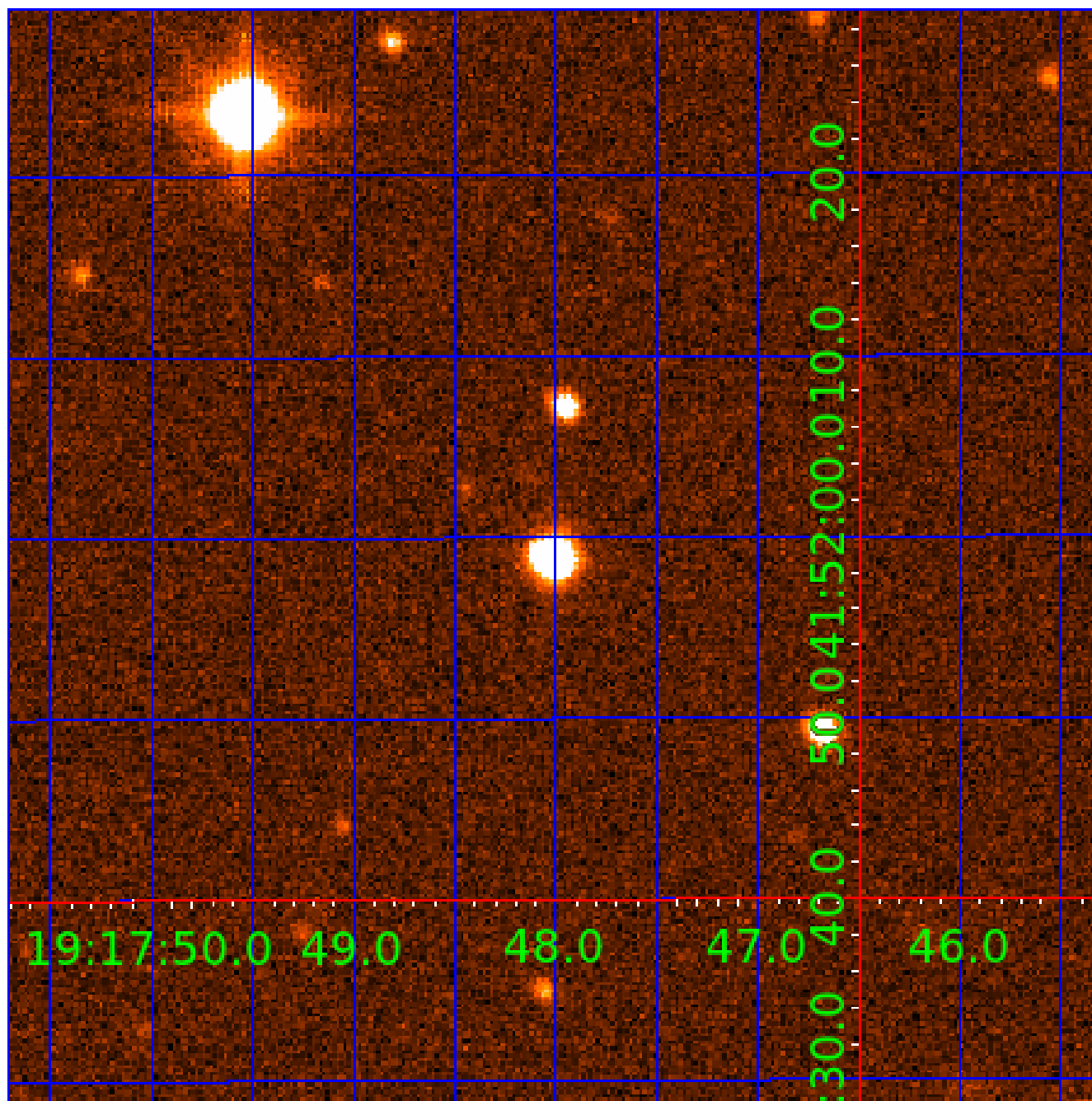
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 006435767

Q1-17 DR25 TCE Parameters

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006435767-04	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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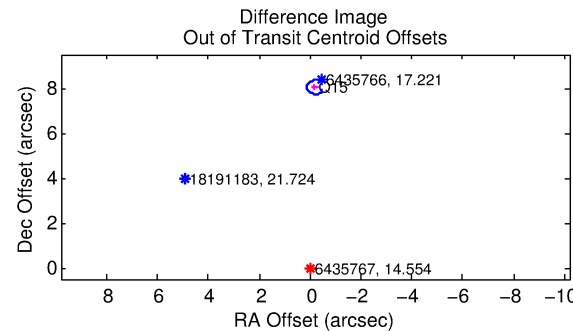
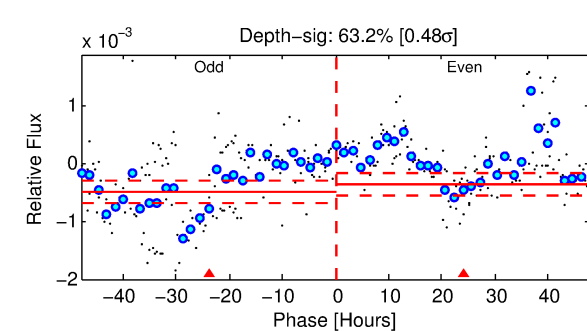
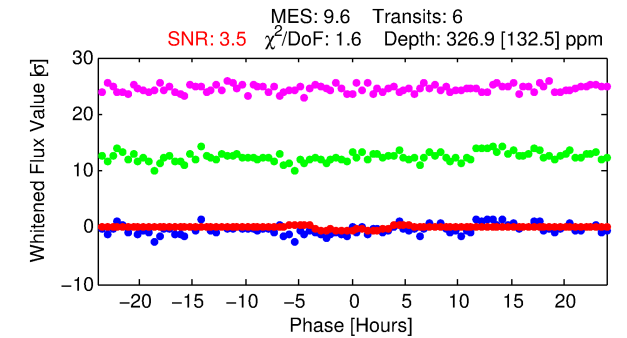
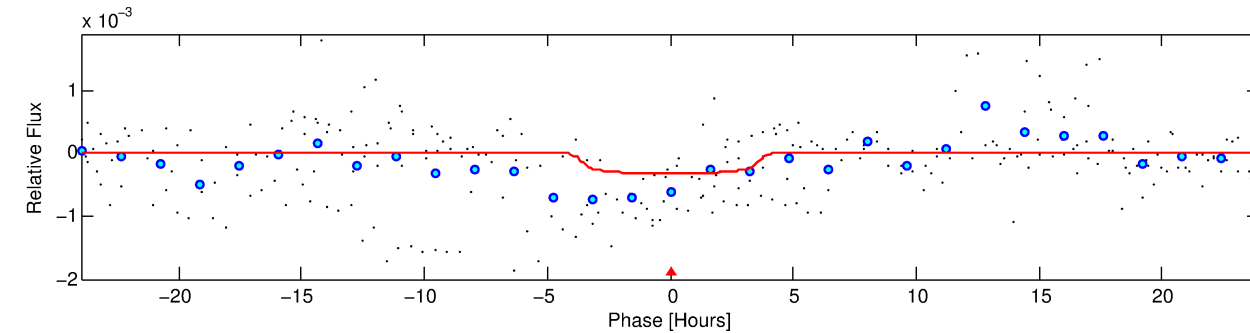
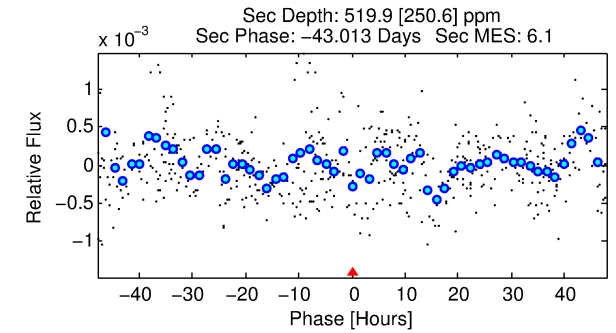
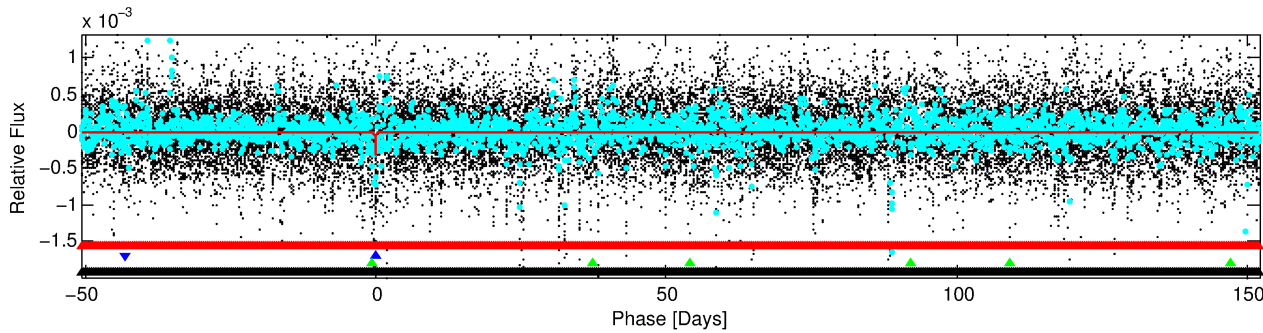
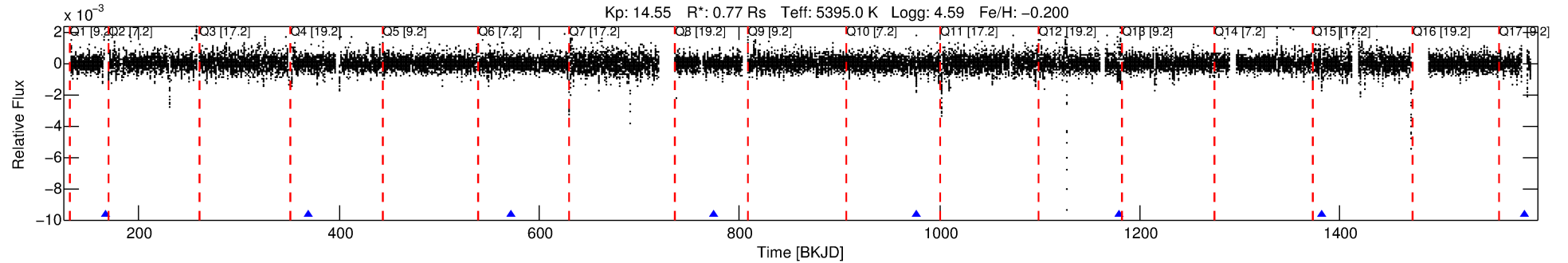
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006435767-02

No Significant Match Found

DV One-Page Summary

KIC: 6435767 Candidate: 2 of 4 Period: 202.585 d



DV Fit Results:

Period = 202.58464 [0.01237] d
Epoch = 166.8182 [0.0440] BKJD
Rp/R* = 0.0196 [0.0104]
a/R* = 98.26 [197.46]
b = 0.88 [0.50]
Seff = 1.10 [0.28]
Teq = 261 [16] K
Rp = 1.64 [0.92] Re
a = 0.6389 [0.0986] AU
Ag = 43201.01 [51195.52] [0.84σ]
Teffp = 5824 [1704] K [3.27σ]

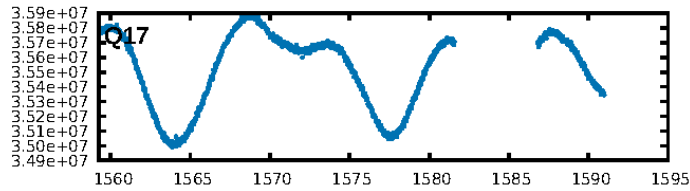
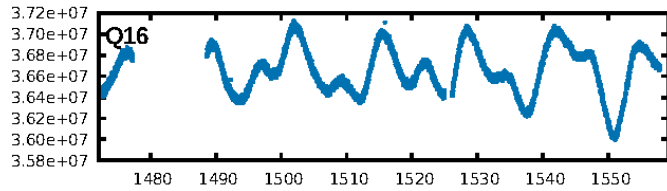
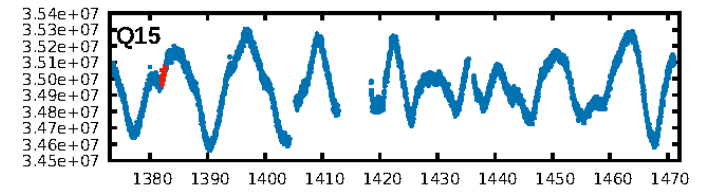
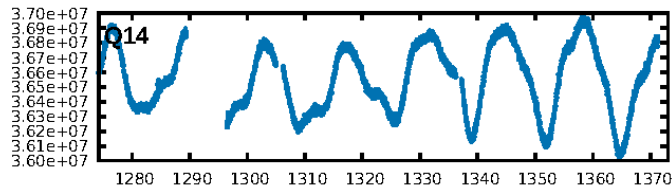
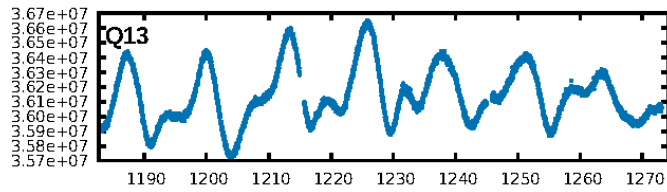
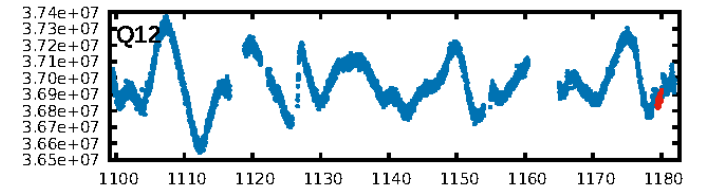
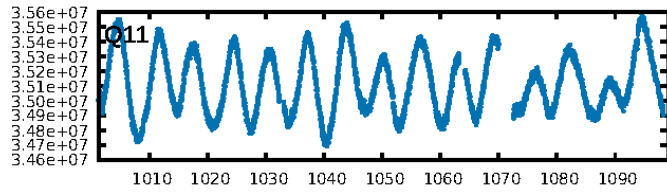
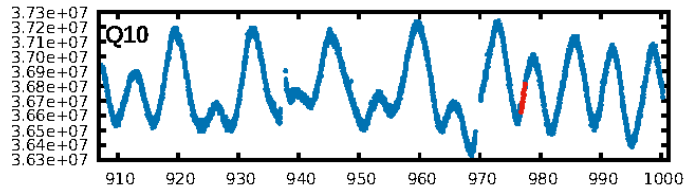
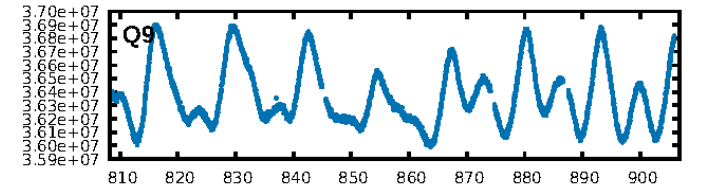
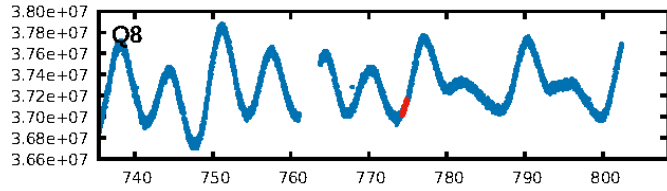
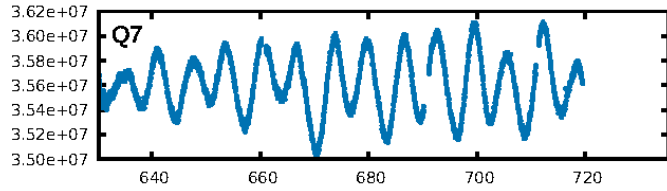
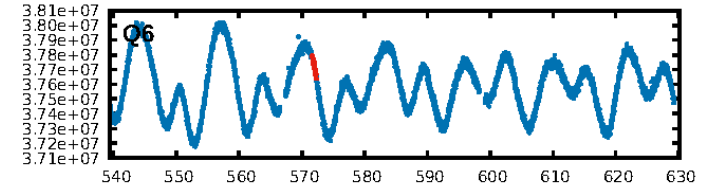
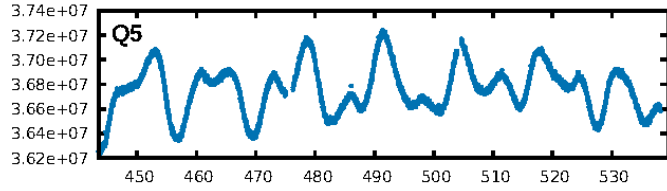
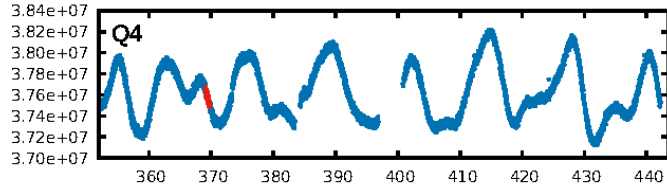
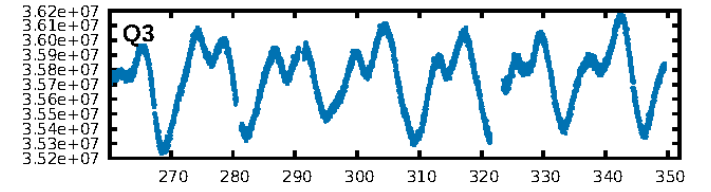
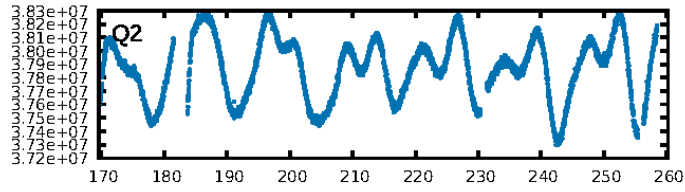
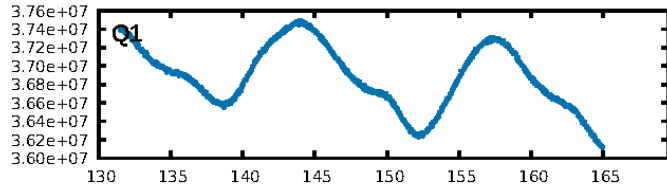
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [585.93σ]
LongPeriod-sig: 100.0% [116.16σ]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 8.046 arcsec [76.28σ]
KicOffset-rm: 8.234 arcsec [78.06σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 0.00 [0/6]

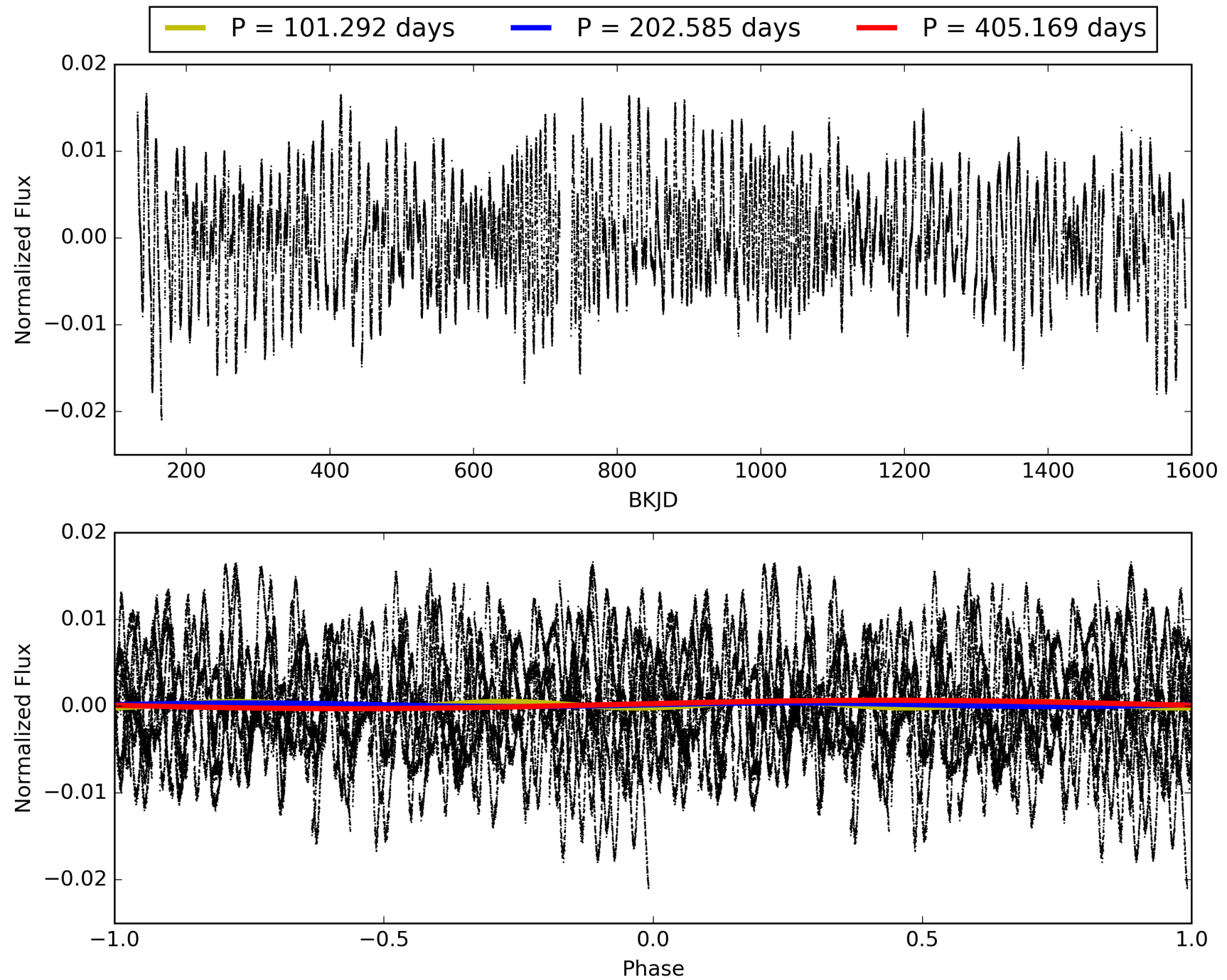
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 22:43:18 Z

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

TCE 006435767-02, PDC Light Curves

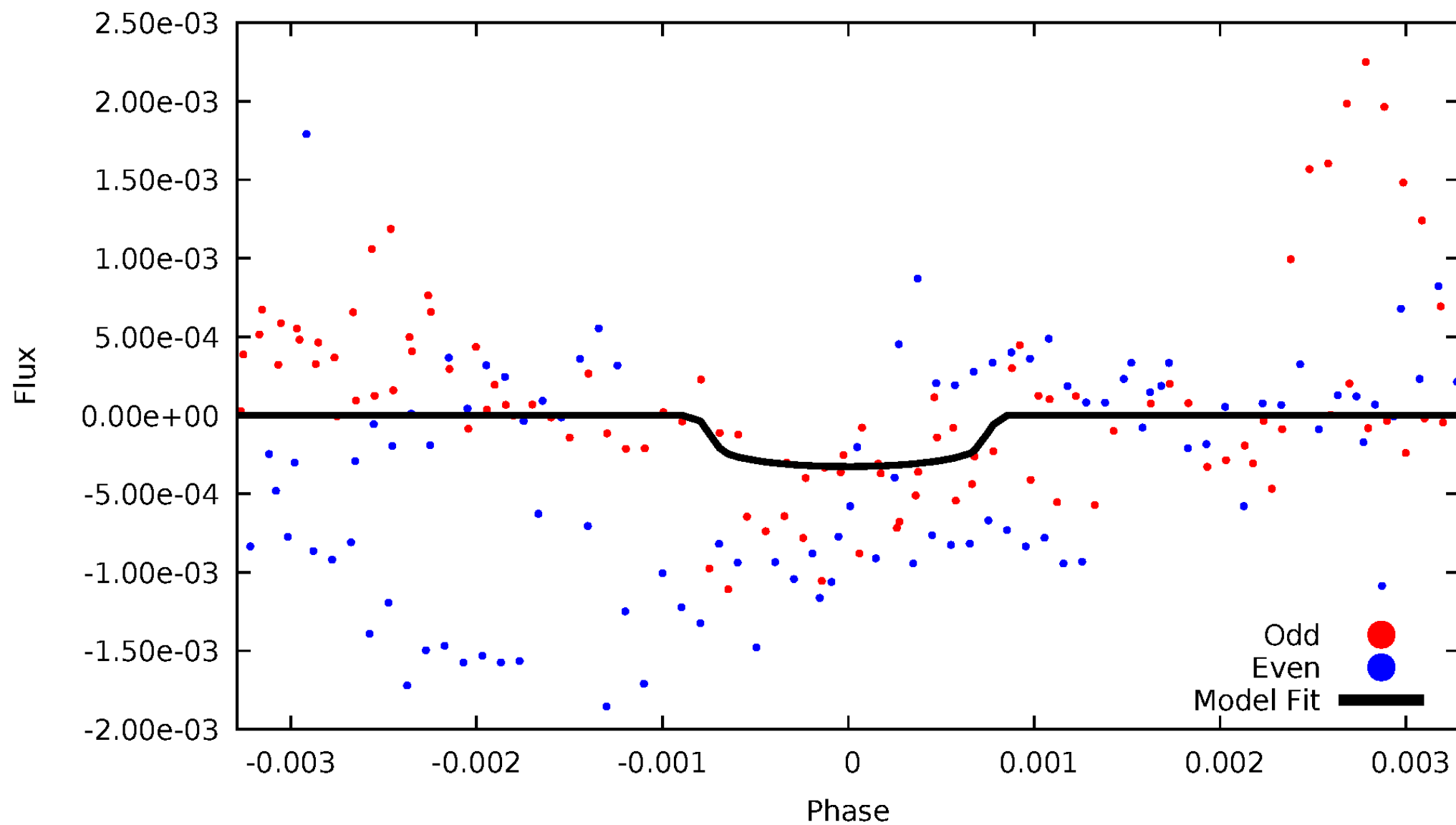


TCE 006435767-02



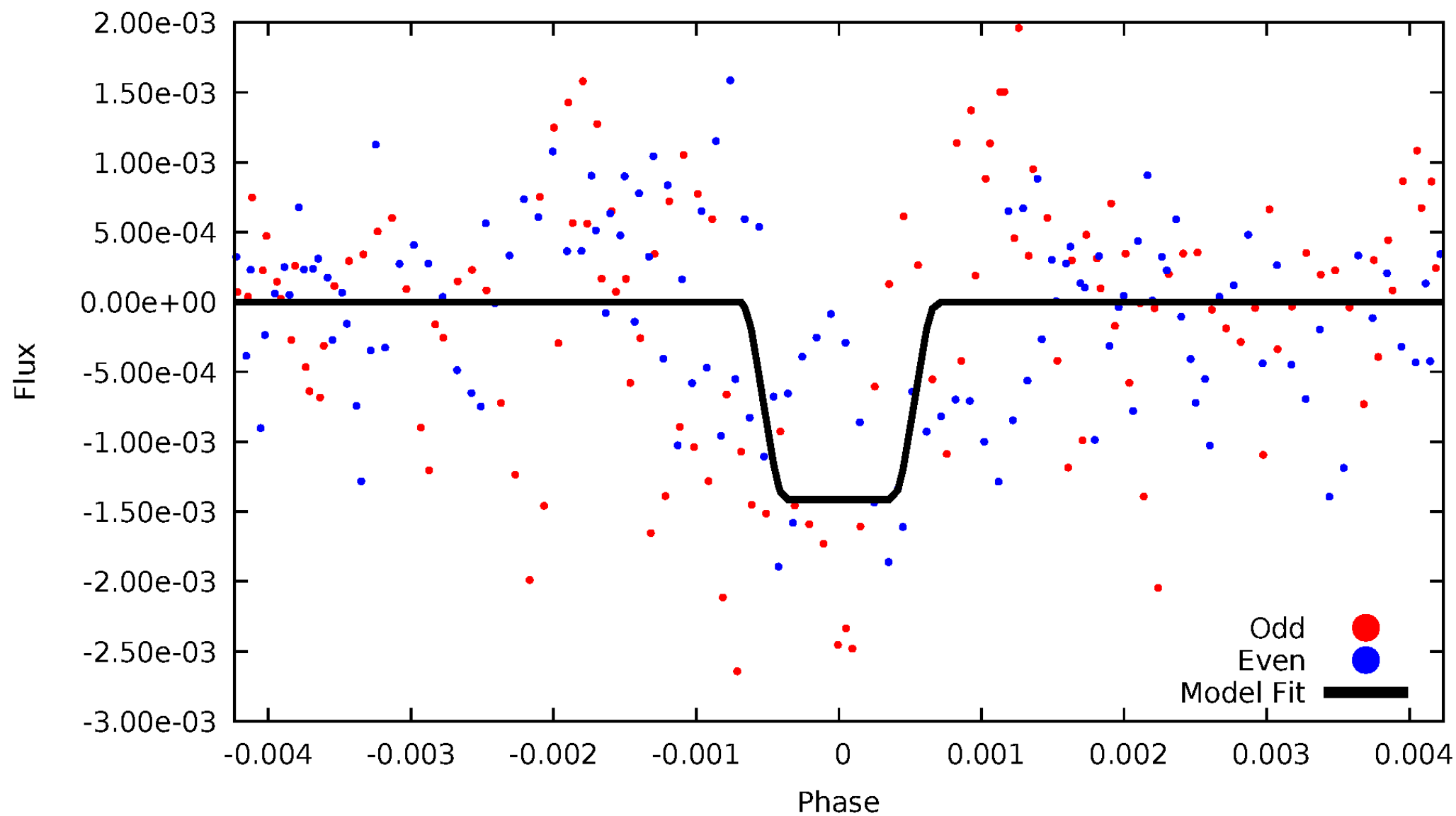
DV Odd/Even

TCE 006435767-02



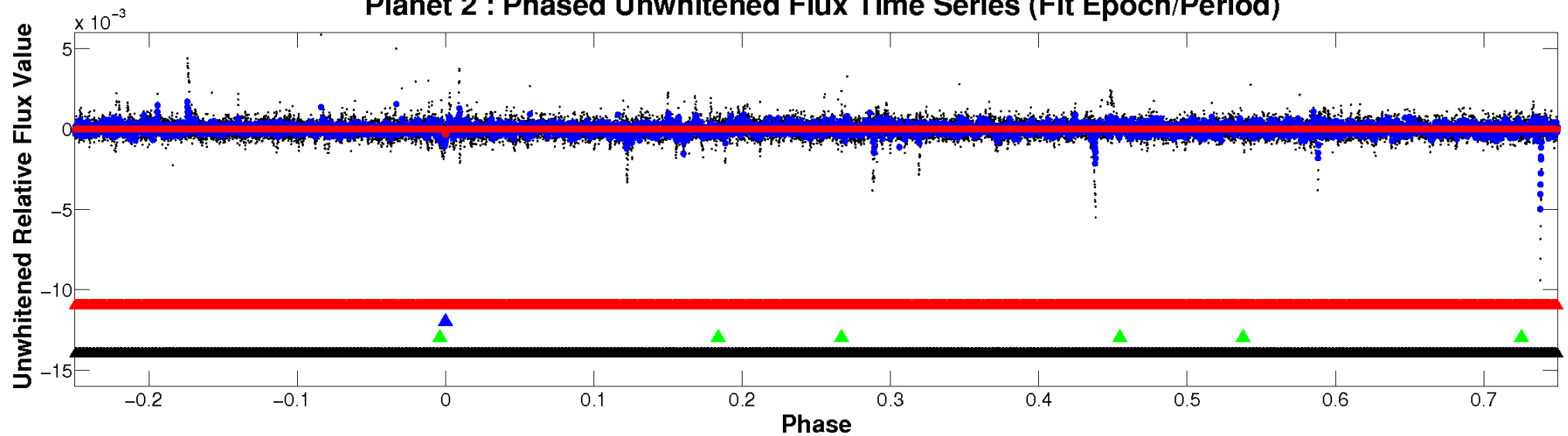
ALT Odd/Even

TCE 006435767-02

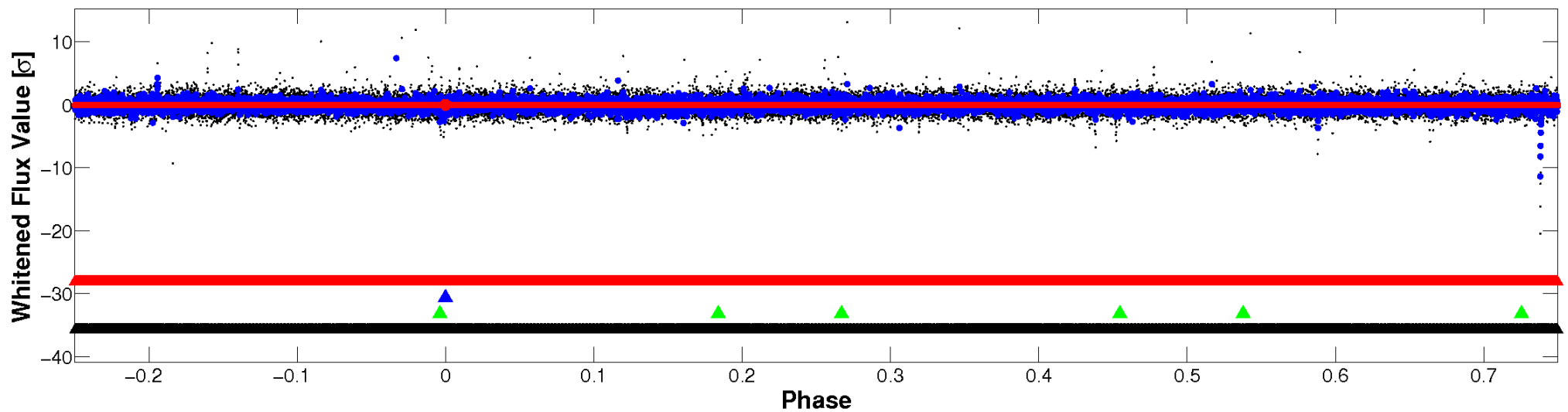


Non-Whitened Vs. Whitened Light Curve

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

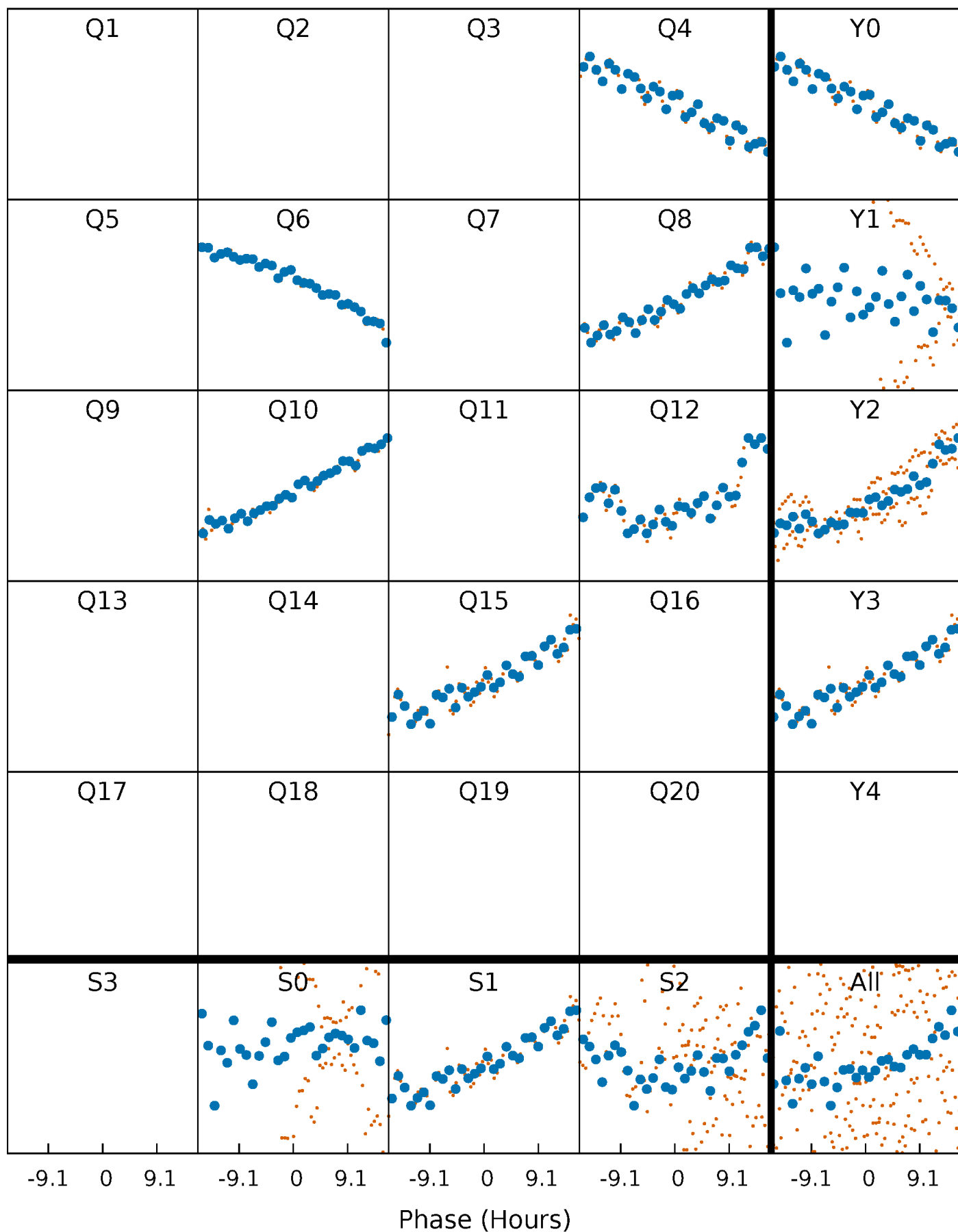


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



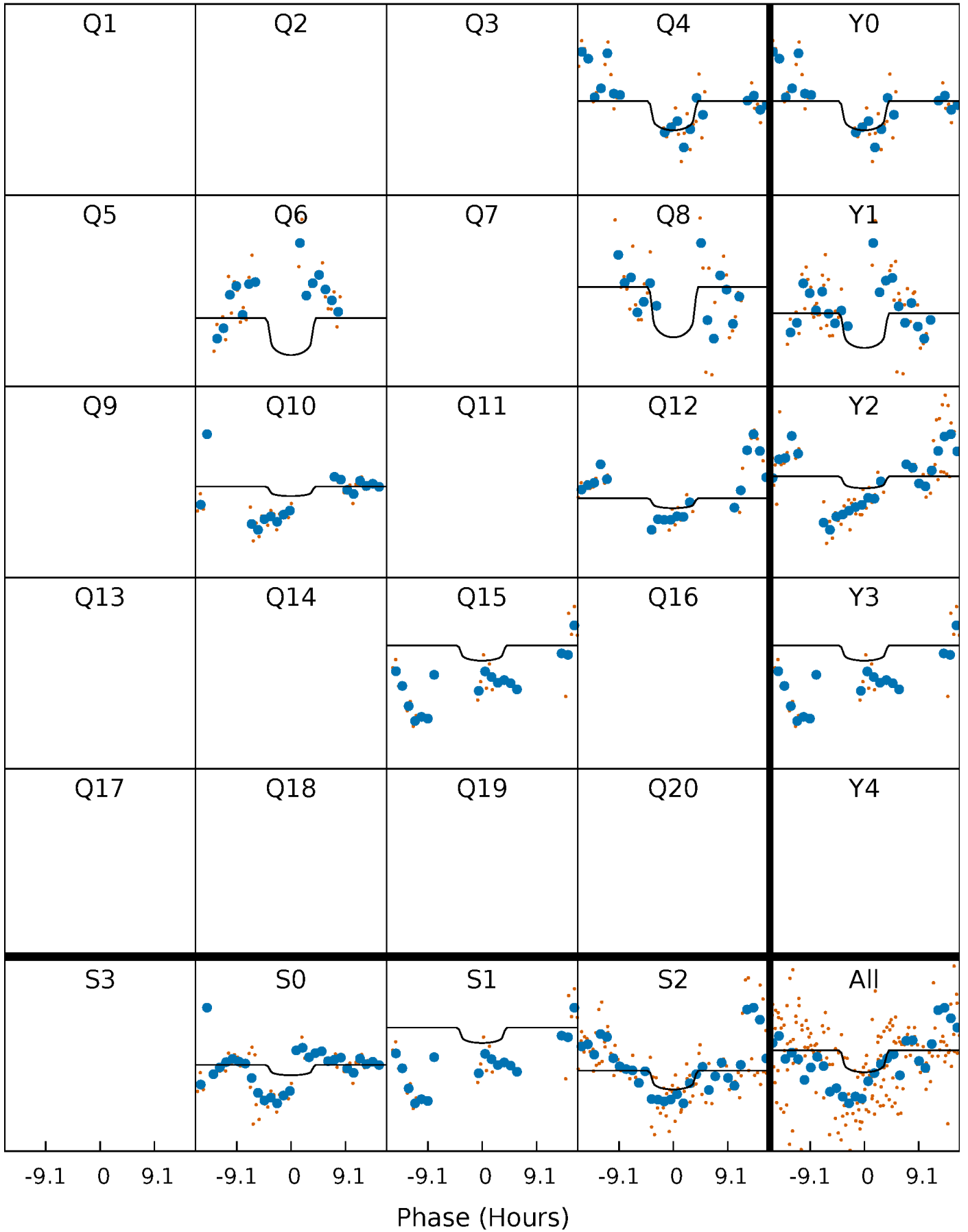
PDC Quarter-Phased Transit Curves

TCE 006435767-02 P=202.584637 Days $T_0=166.818185$ (BKJD)



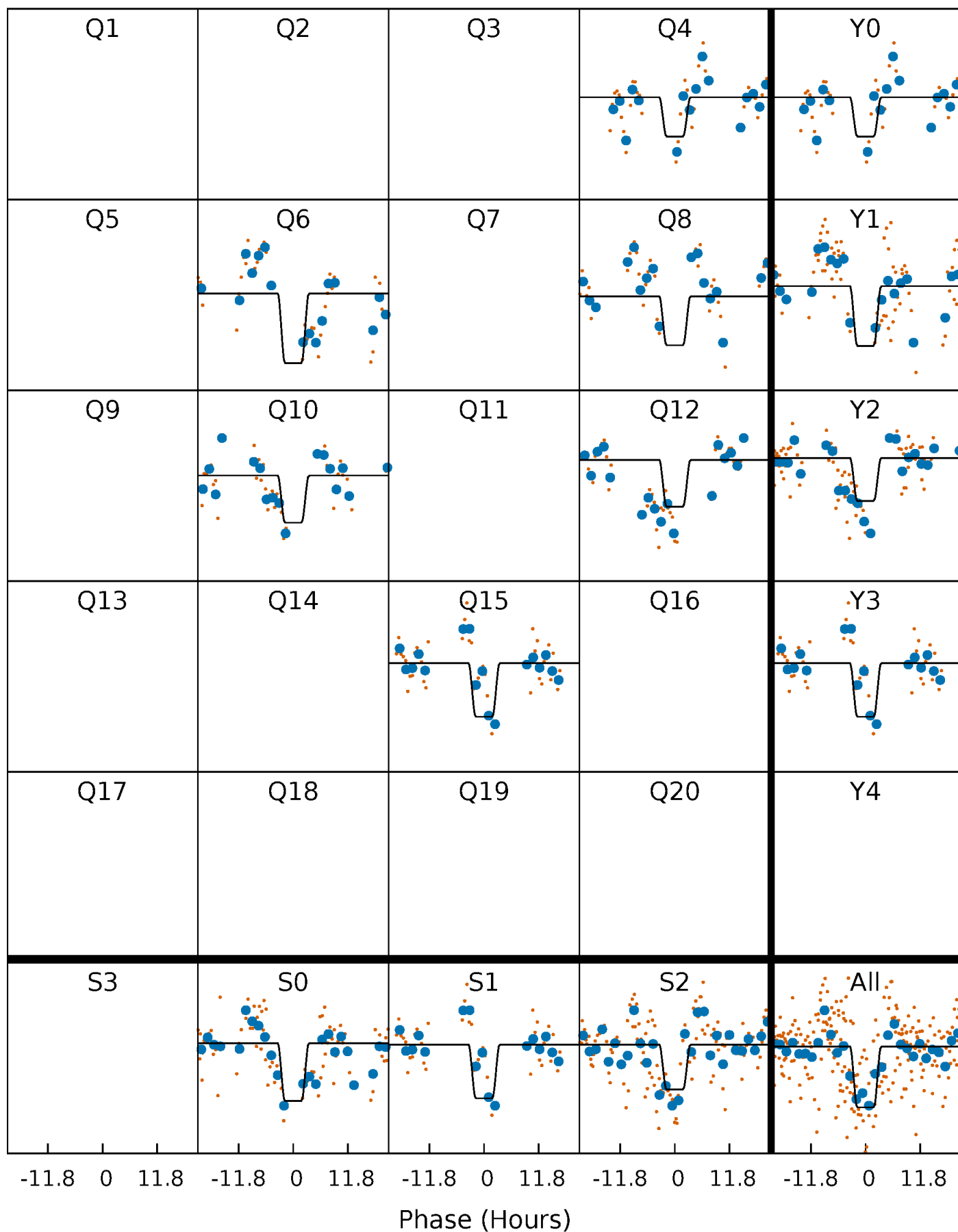
DV Quarter-Phased Transit Curves

TCE 006435767-02 P=202.584637 Days $T_0=166.818185$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

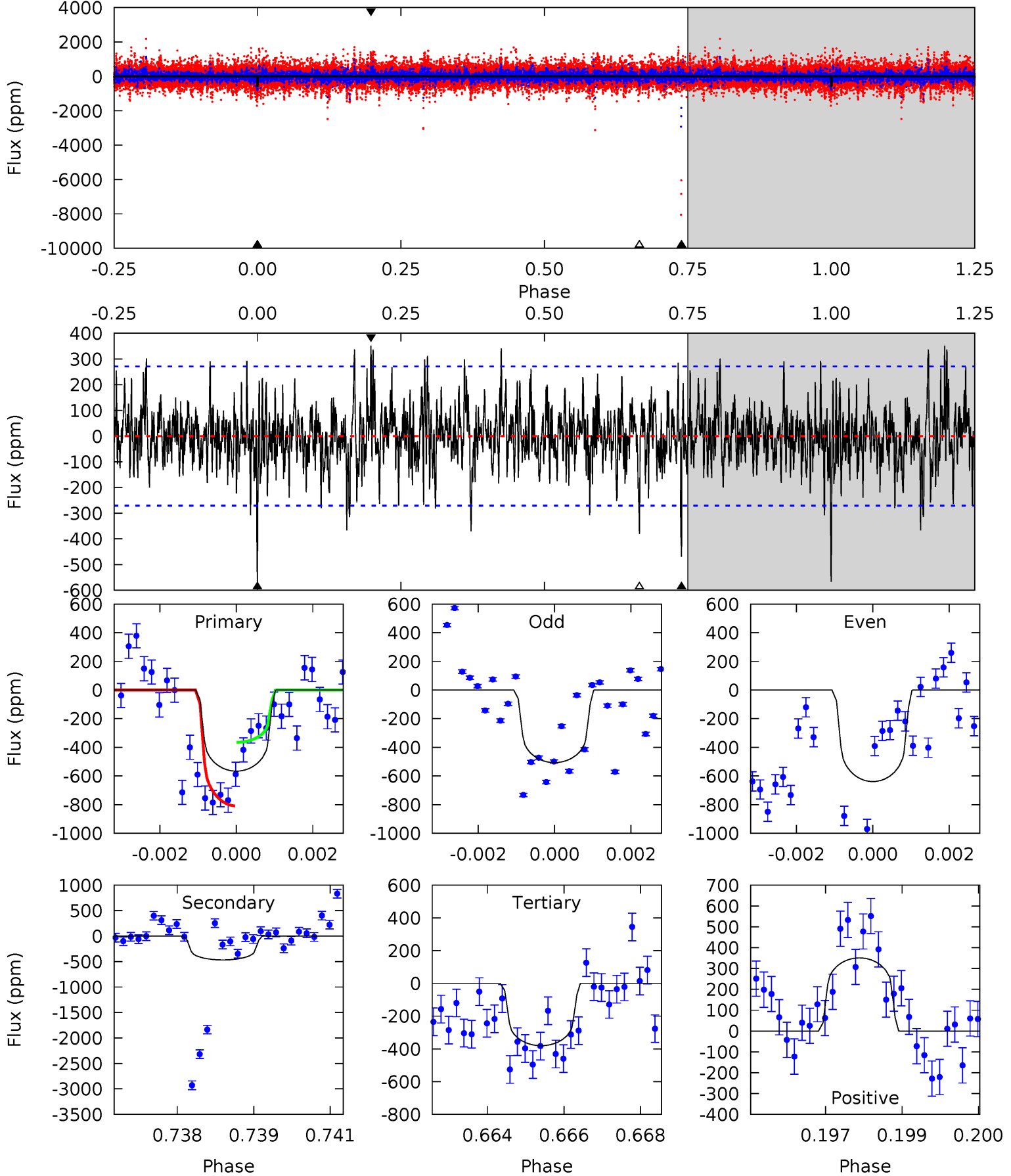
TCE 006435767-02 $P=202.632803$ Days $T_0=166.692899$ (BKJD)



DV Model-Shift Uniqueness Test

006435767-02, P = 202.584637 Days, E = 166.818185 Days

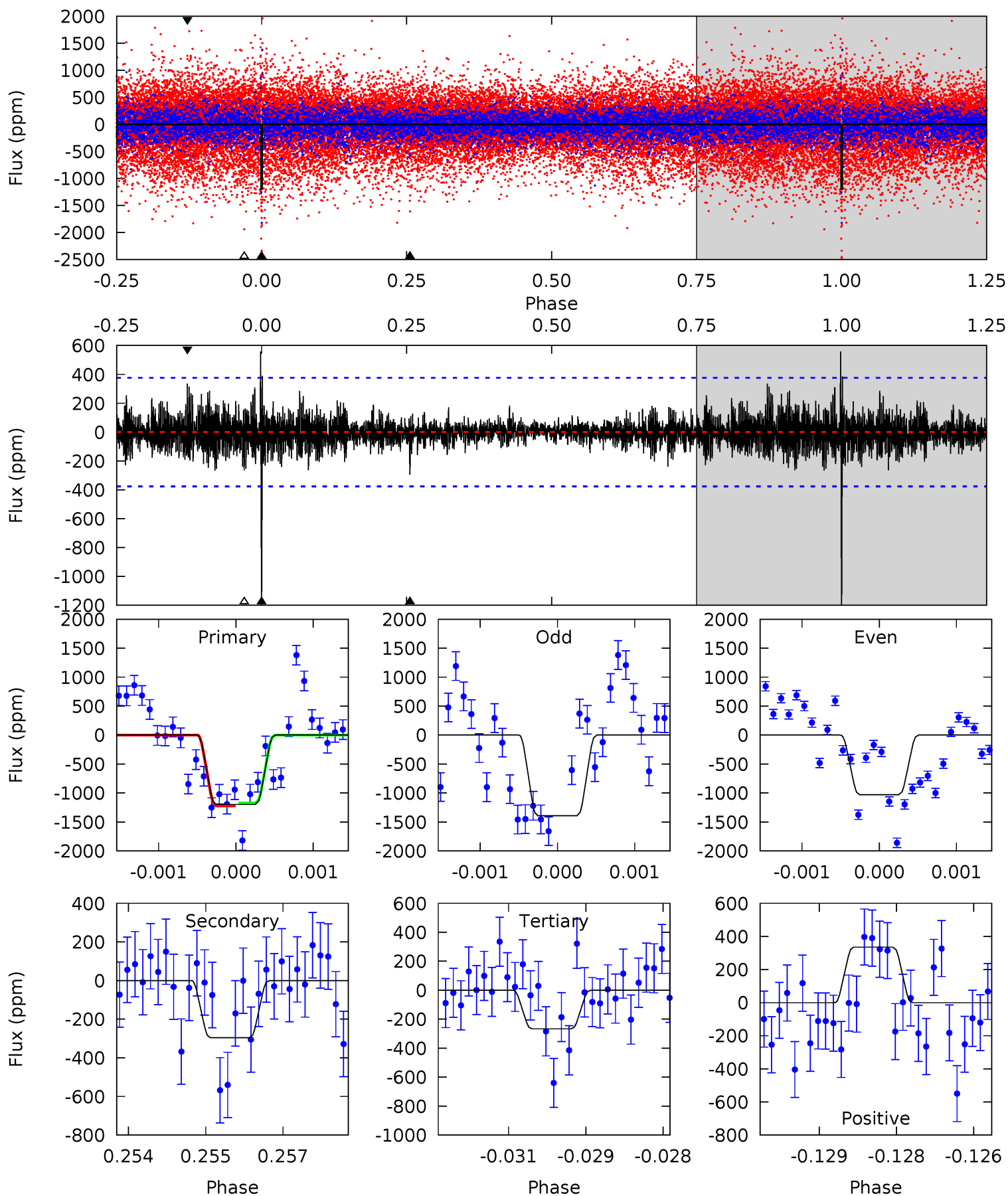
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	9.27	7.53	6.94	5.36	3.14	1.91	3.67	4.26	1.75	2.34	1.23	0.84	0.38	4.38



Alt Model-Shift Uniqueness Test

006435767-02, P = 202.632803 Days, E = 166.692899 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	4.25	3.83	4.81	5.39	3.19	1.05	13.4	12.4	0.42	-0.57	2.52	0.95	0.32	0.34



Stellar Parameters For KIC 006435767

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5395^{+159}_{-143}	$4.593^{+0.037}_{-0.120}$	$-0.200^{+0.300}_{-0.300}$	$0.770^{+0.143}_{-0.061}$	$0.859^{+0.078}_{-0.096}$	$2.654^{+0.453}_{-1.003}$
	+3%/-3%	+1%/-3%	+150%/-150%	+19%/-8%	+9%/-11%	+17%/-38%
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 006435767-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-469 ± 51	$1.75^{+0.87}_{-0.90}$	371^{+17}_{-15}	5550^{+2574}_{-866}	$32855^{+112247}_{-17923}$
Alt.	-296 ± 70	$3.29^{+0.96}_{-0.87}$	371^{+16}_{-14}	3955^{+483}_{-372}	6167^{+5342}_{-2824}

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 $A_{\text{obs}} \gg 1.0$

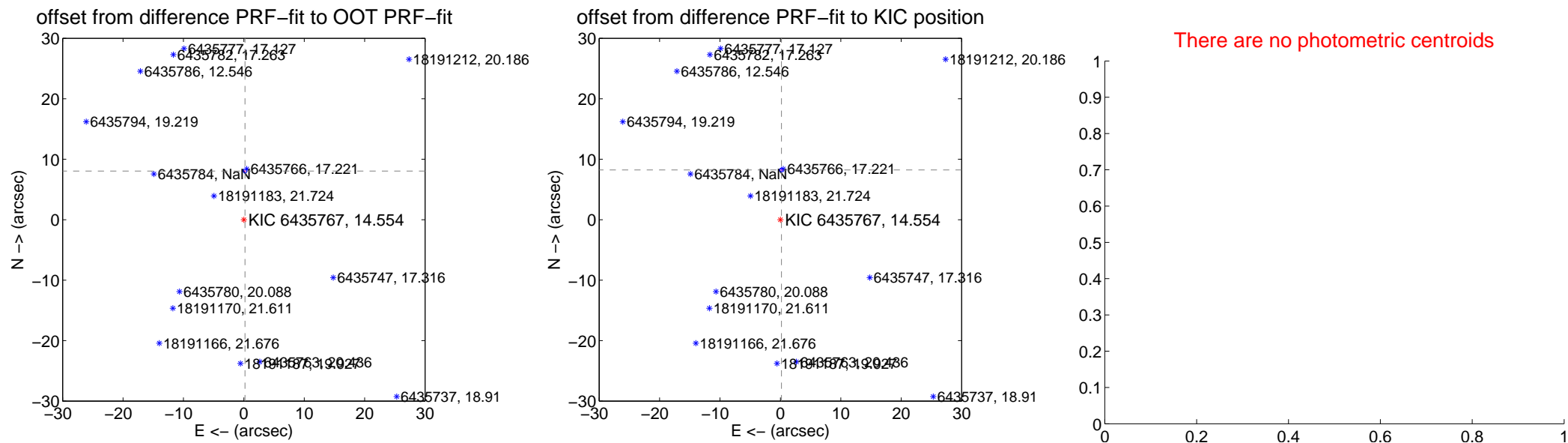
DV Centroid Data

Supplemental centroid analysis for 006435767-02. Kepler magnitude: 14.55. Transit SNR 3.48

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.046 \pm 0.105	76.28	-0.189 \pm 0.096	8.044 \pm 0.105
PRF-fit source offset from KIC position	8.234 \pm 0.105	78.06	-0.175 \pm 0.096	8.232 \pm 0.105
photometric centroid source offset	—	—	—	—



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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

Q1 no difference image



Q1 no OOT image



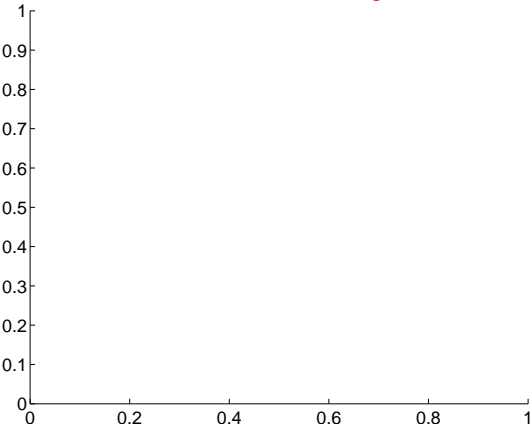
Q2 no difference image



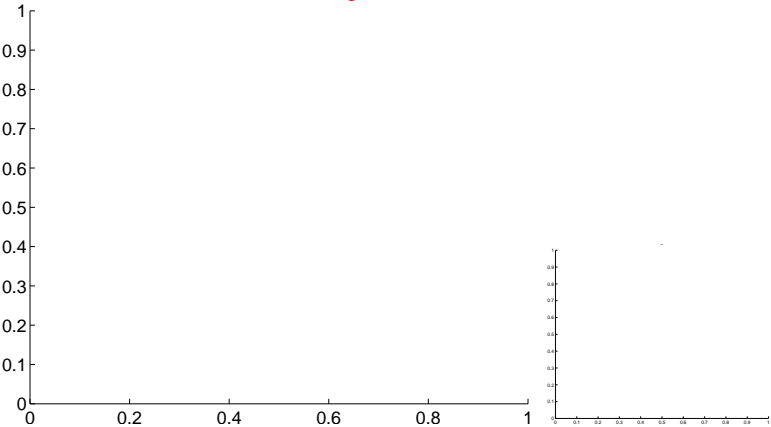
Q2 no OOT image



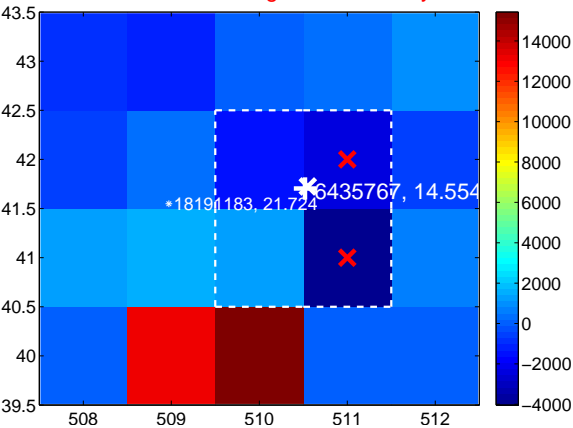
Q3 no difference image



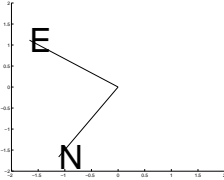
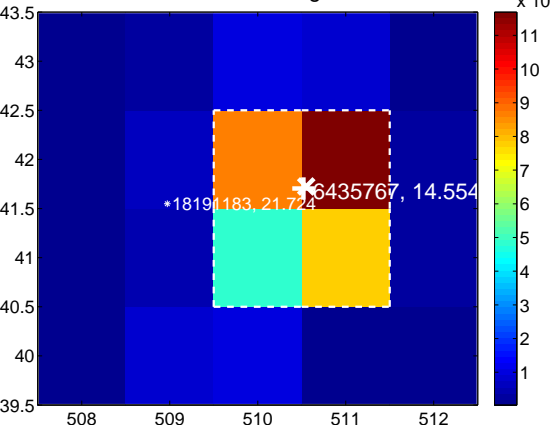
Q3 no OOT image



Q4 difference image. Poor Quality



Q4 OOT image



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

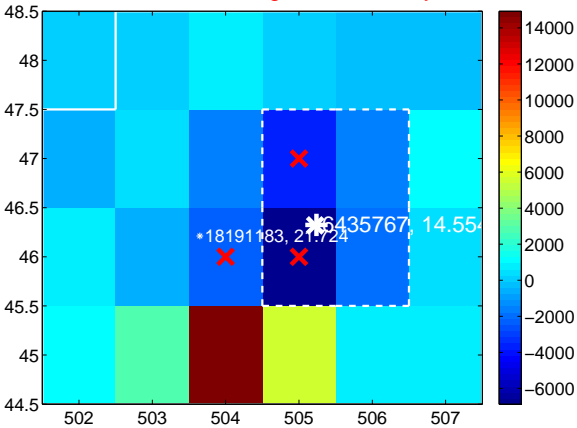
Q5 no difference image



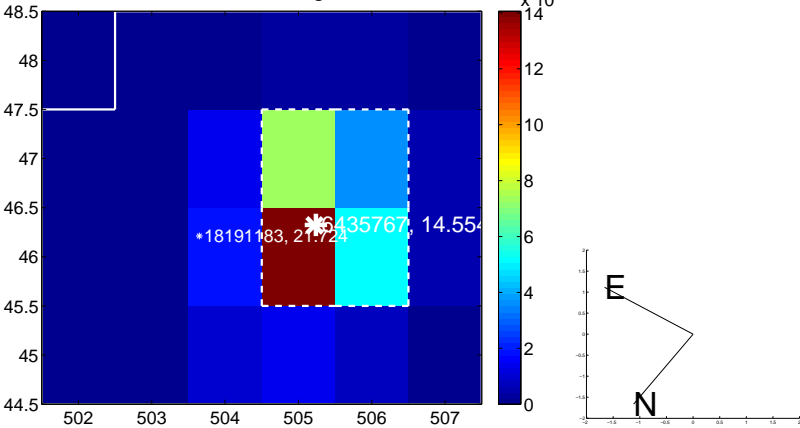
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



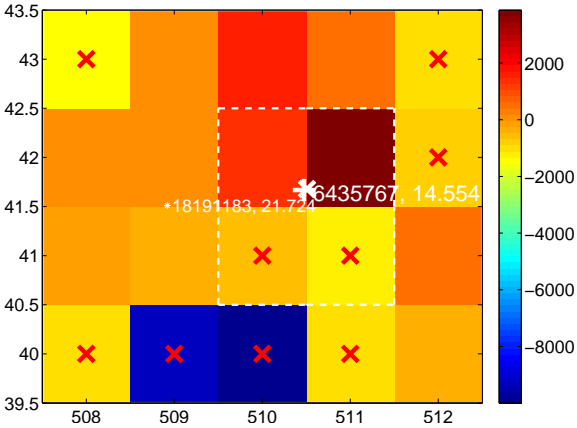
Q7 no difference image



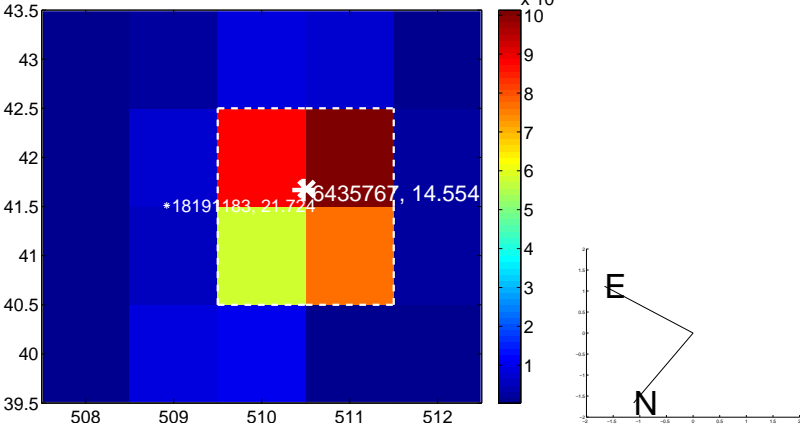
Q7 no OOT image



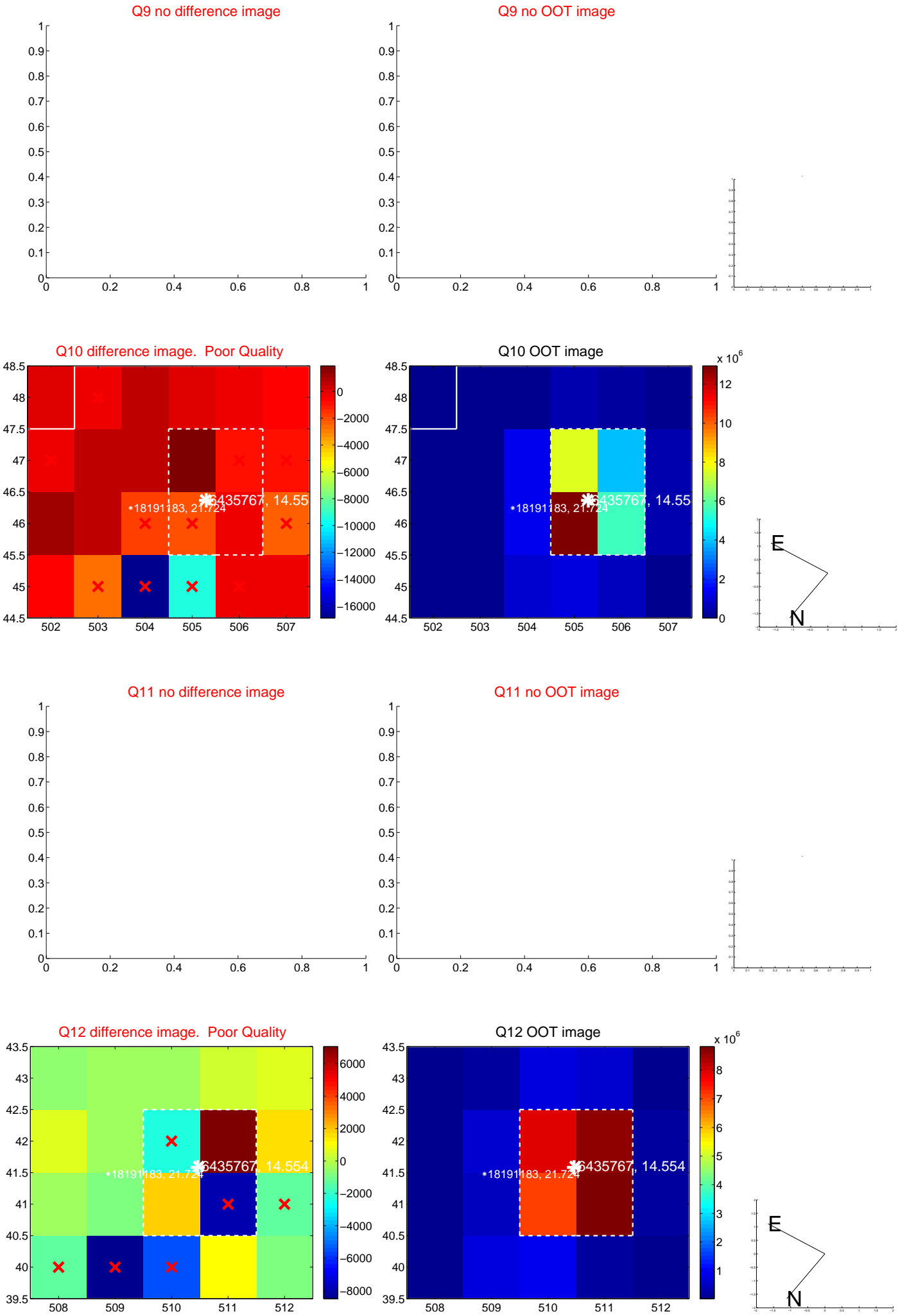
Q8 difference image. Poor Quality



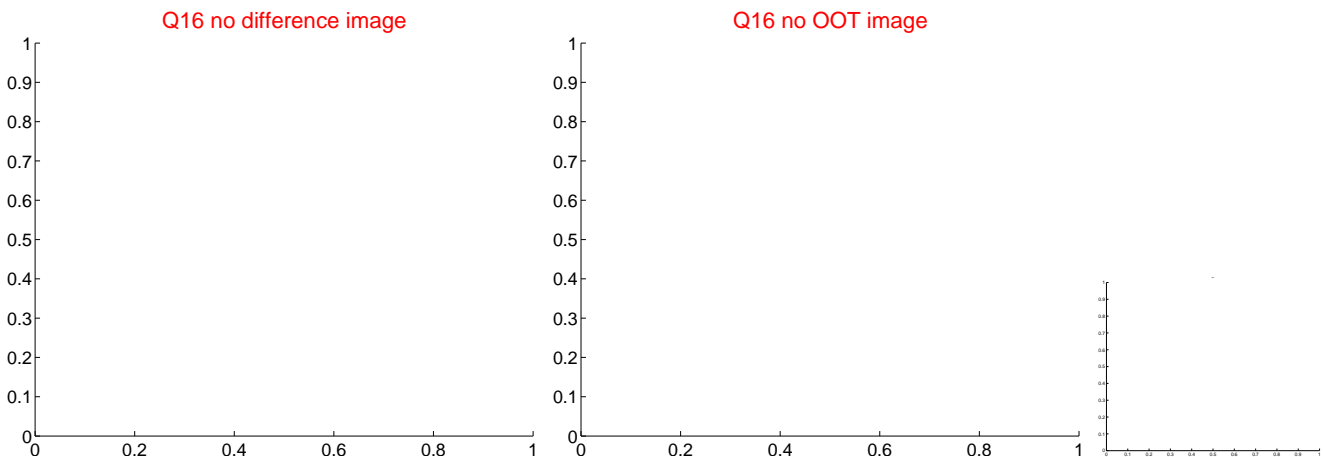
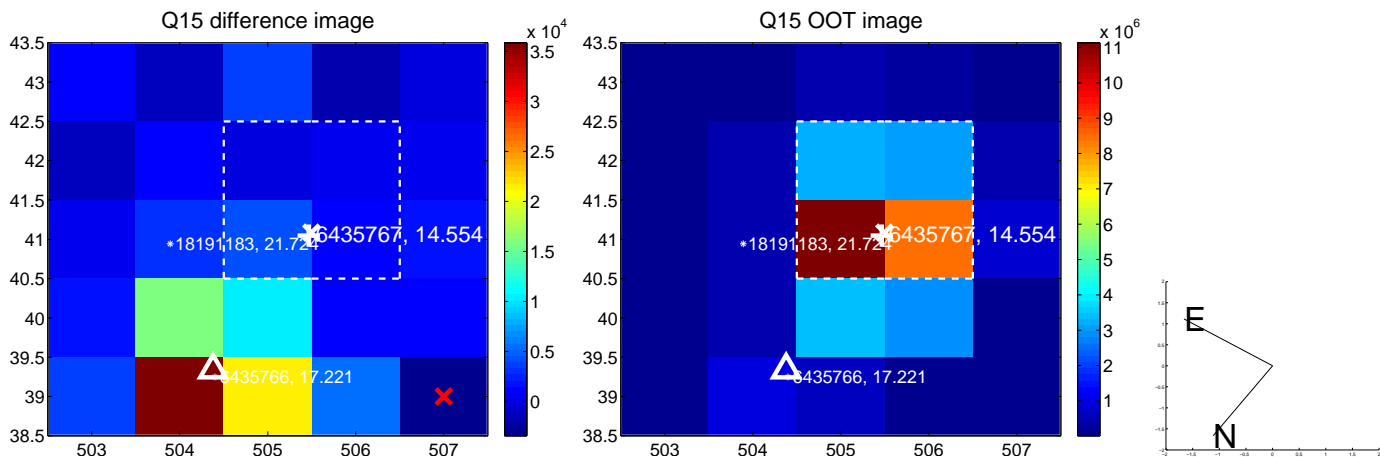
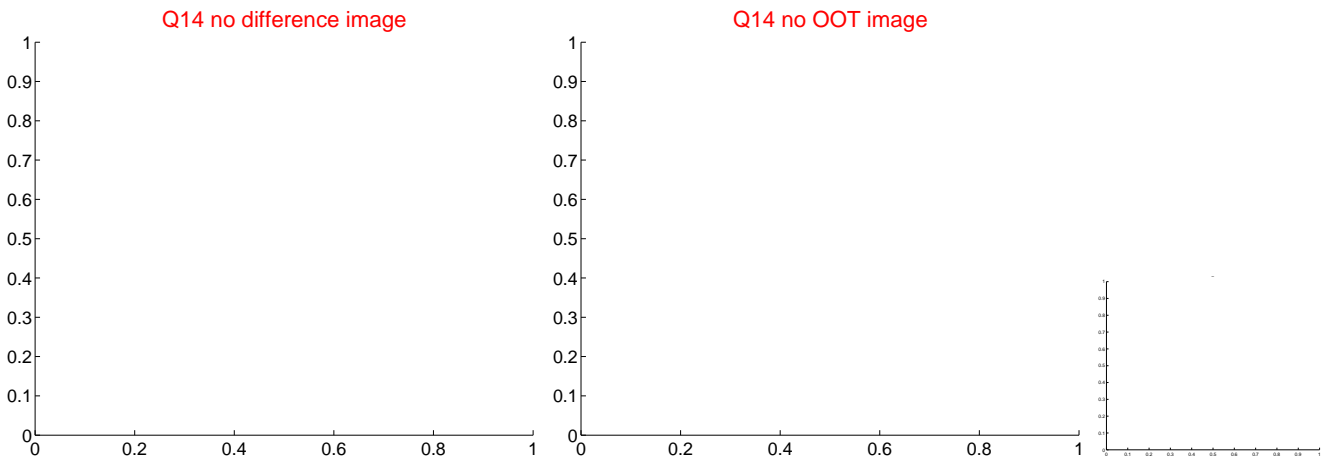
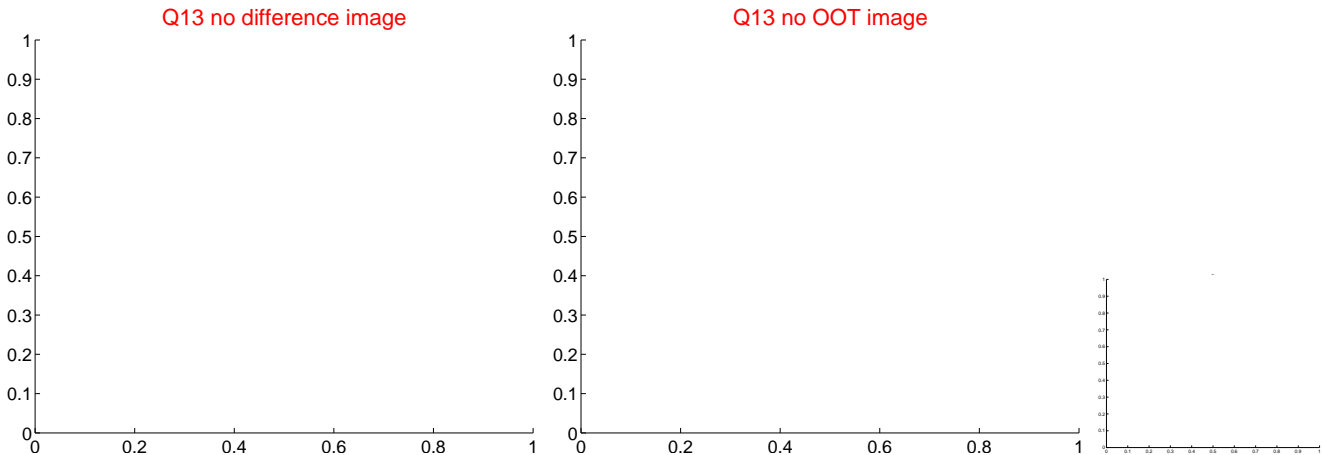
Q8 OOT image



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



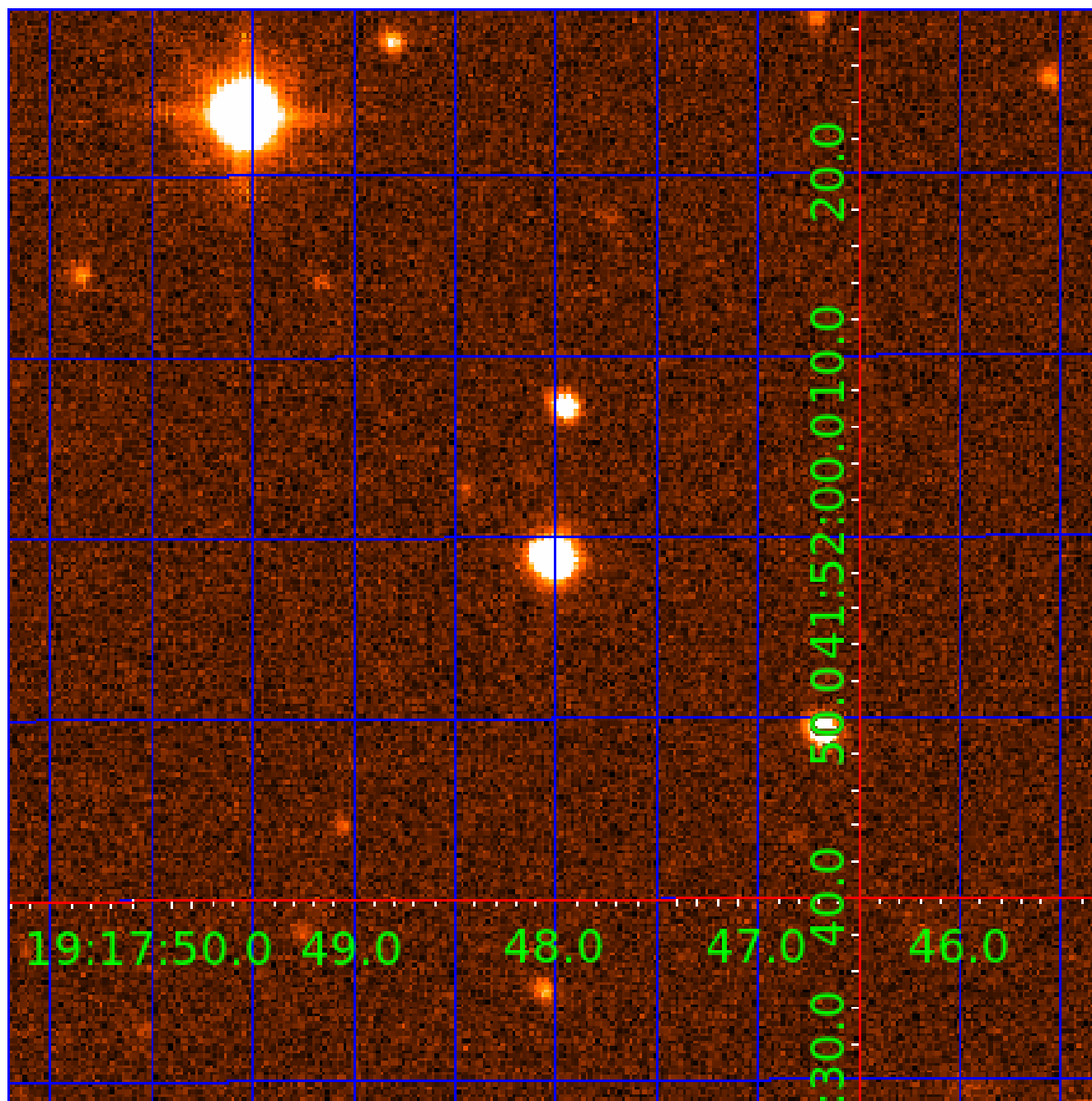
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 006435767

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})
006435767-01	OBS	No	0.594460	131.996753	56.4	2.142	9.0	13.2	0.77	5395	0.69	2624.36
006435767-02	OBS	No	202.584637	166.818185	326.9	7.992	9.6	3.5	0.77	5395	1.64	1.10
006435767-03	OBS	No	257.440263	204.073968	393.6	8.037	9.3	5.0	0.77	5395	1.62	0.80
006435767-04	OBS	No	0.594434	131.705029	31.9	3.492	8.2	8.8	0.77	5395	0.43	2624.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006435767-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
006435767-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_FEW_DIFFS
006435767-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006435767-04	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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

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

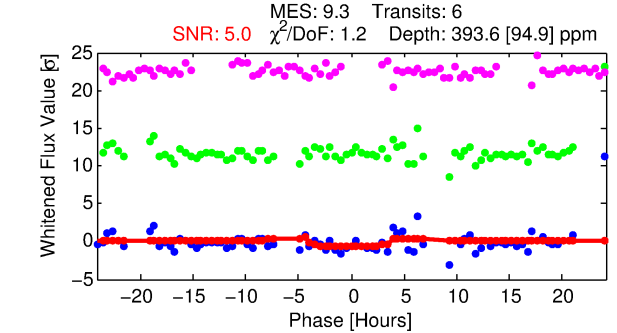
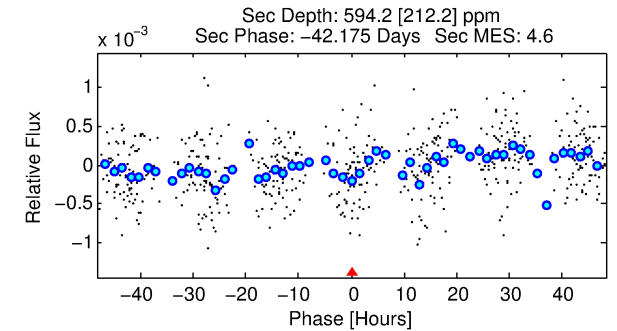
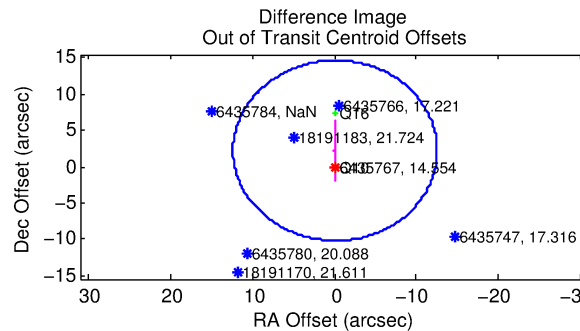
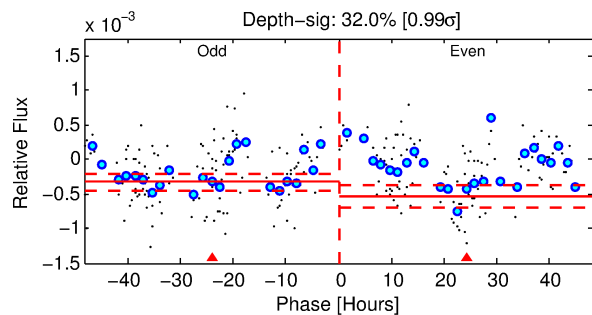
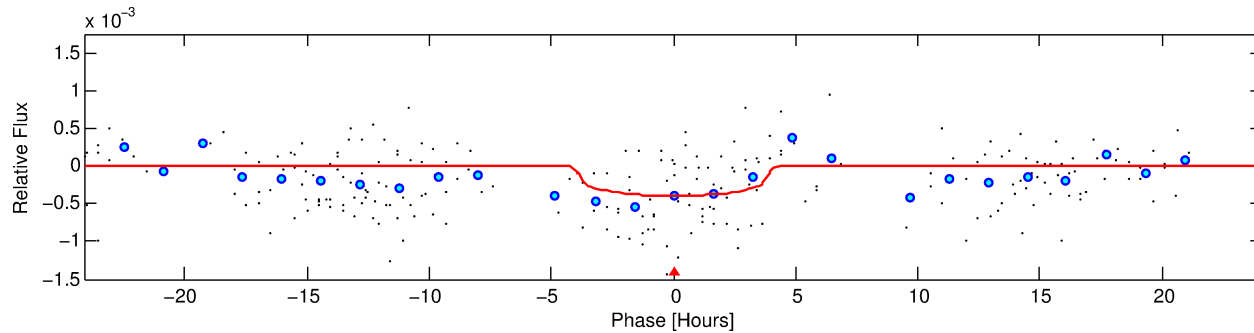
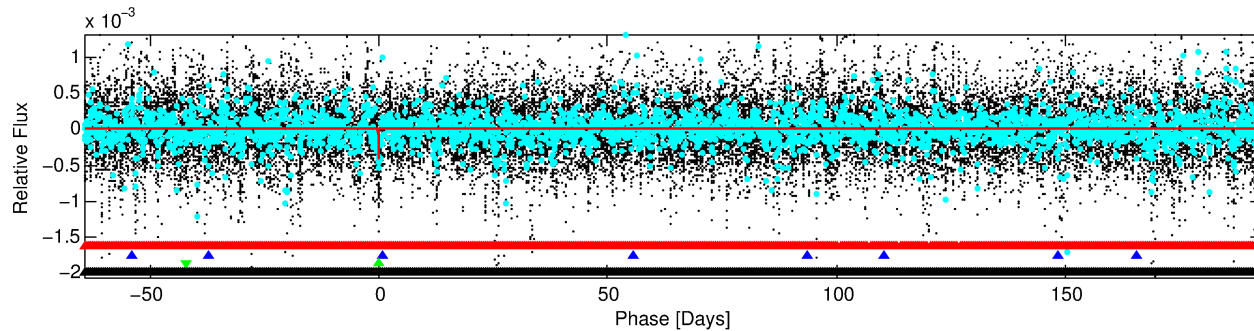
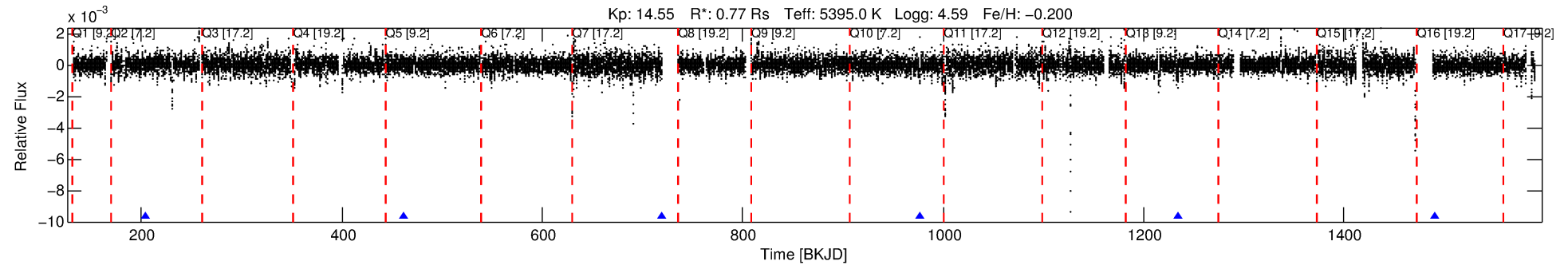
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006435767-03

No Significant Match Found

DV One-Page Summary

KIC: 6435767 Candidate: 3 of 4 Period: 257.440 d



DV Fit Results:

Period = 257.44026 [0.01199] d
Epoch = 204.0740 [0.0367] BKJD
Rp/R* = 0.0193 [0.0315]
a/R* = 185.26 [1212.38]
b = 0.68 [5.14]
Seff = 0.80 [0.20]
Teq = 241 [15] K
Rp = 1.62 [2.67] Re
a = 0.7496 [0.1157] AU
Ag = 69990.31 [230725.13] [0.30 σ]
Teffp = 6066 [4991] K [1.17 σ]

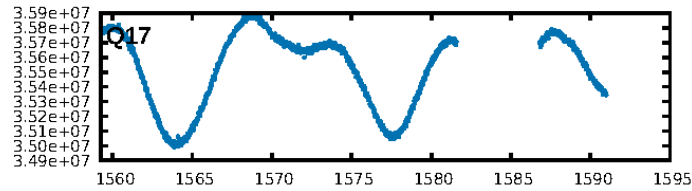
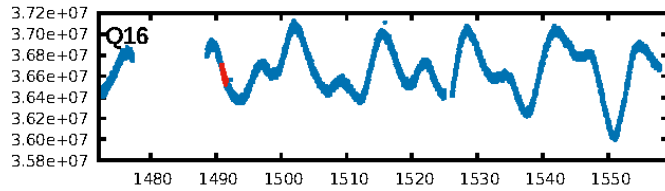
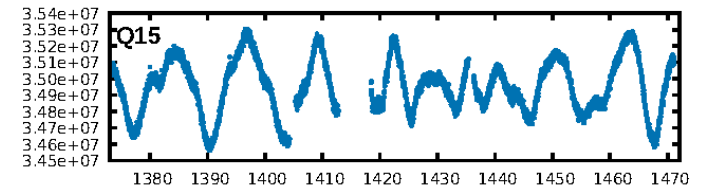
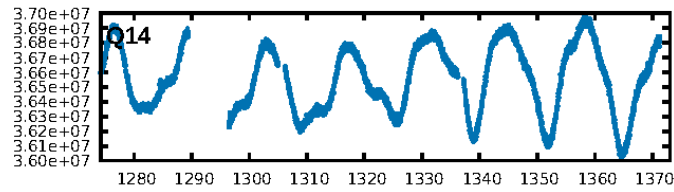
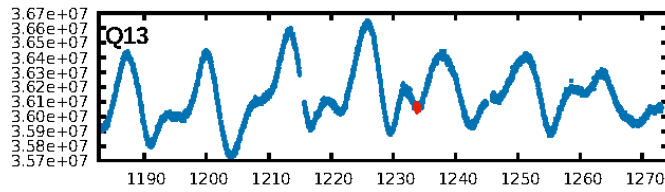
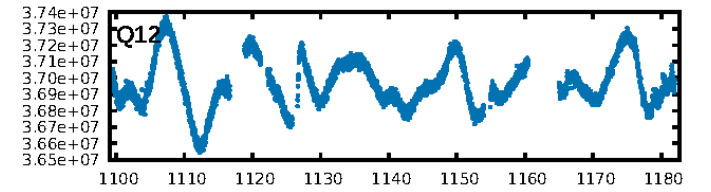
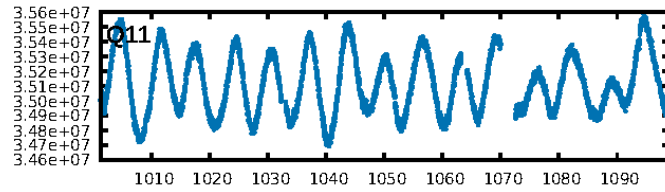
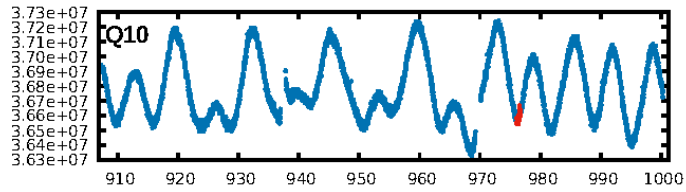
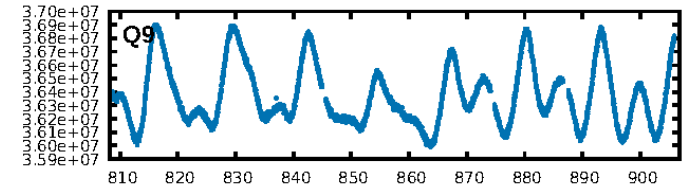
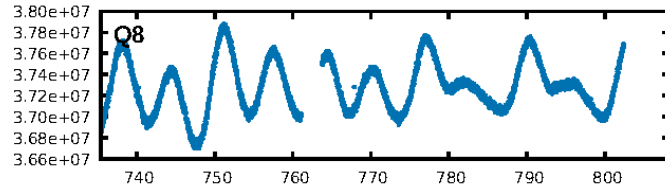
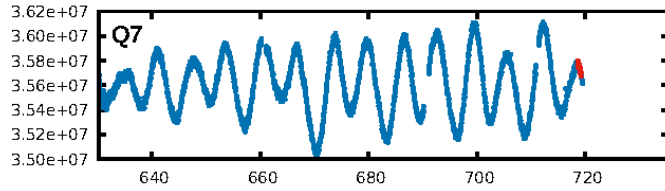
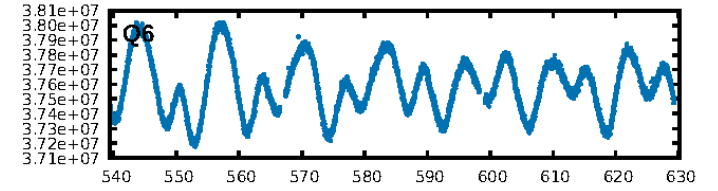
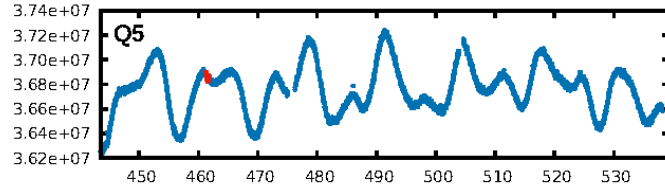
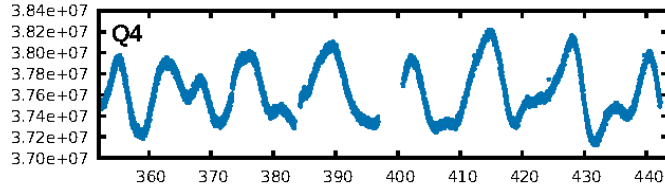
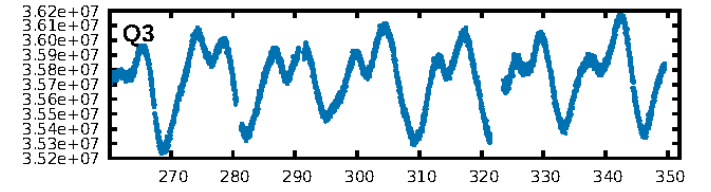
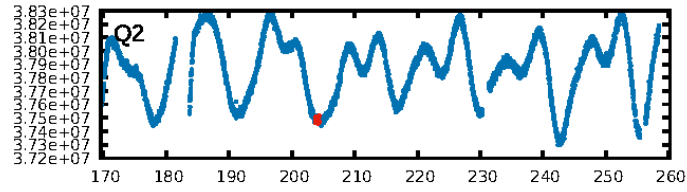
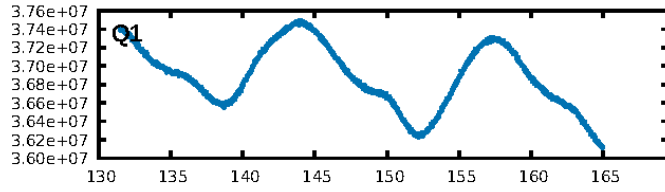
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [116.16 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.222 arcsec [0.54 σ]
KicOffset-rm: 2.245 arcsec [0.54 σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/6]

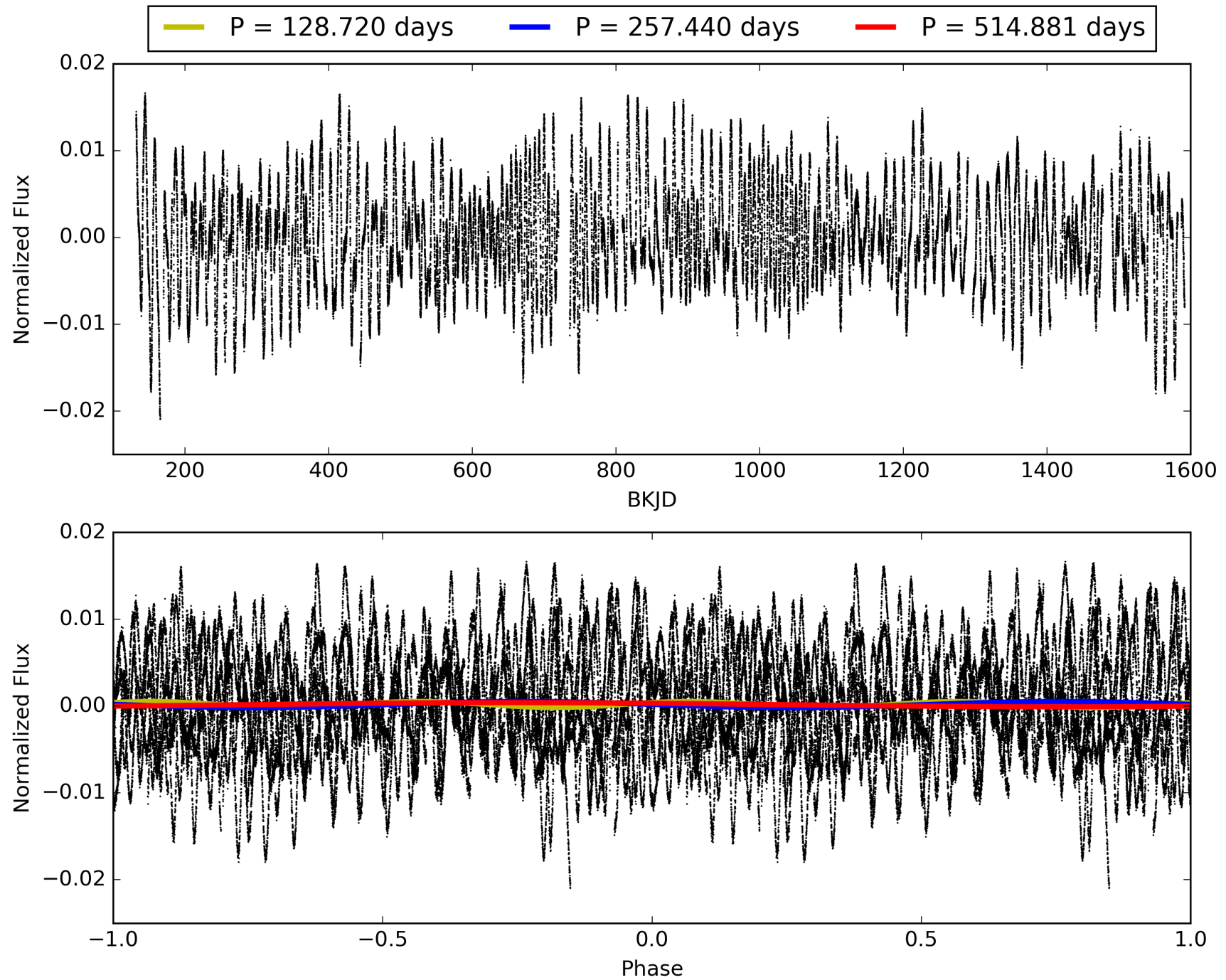
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 22:43:24 Z

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

TCE 006435767-03, PDC Light Curves

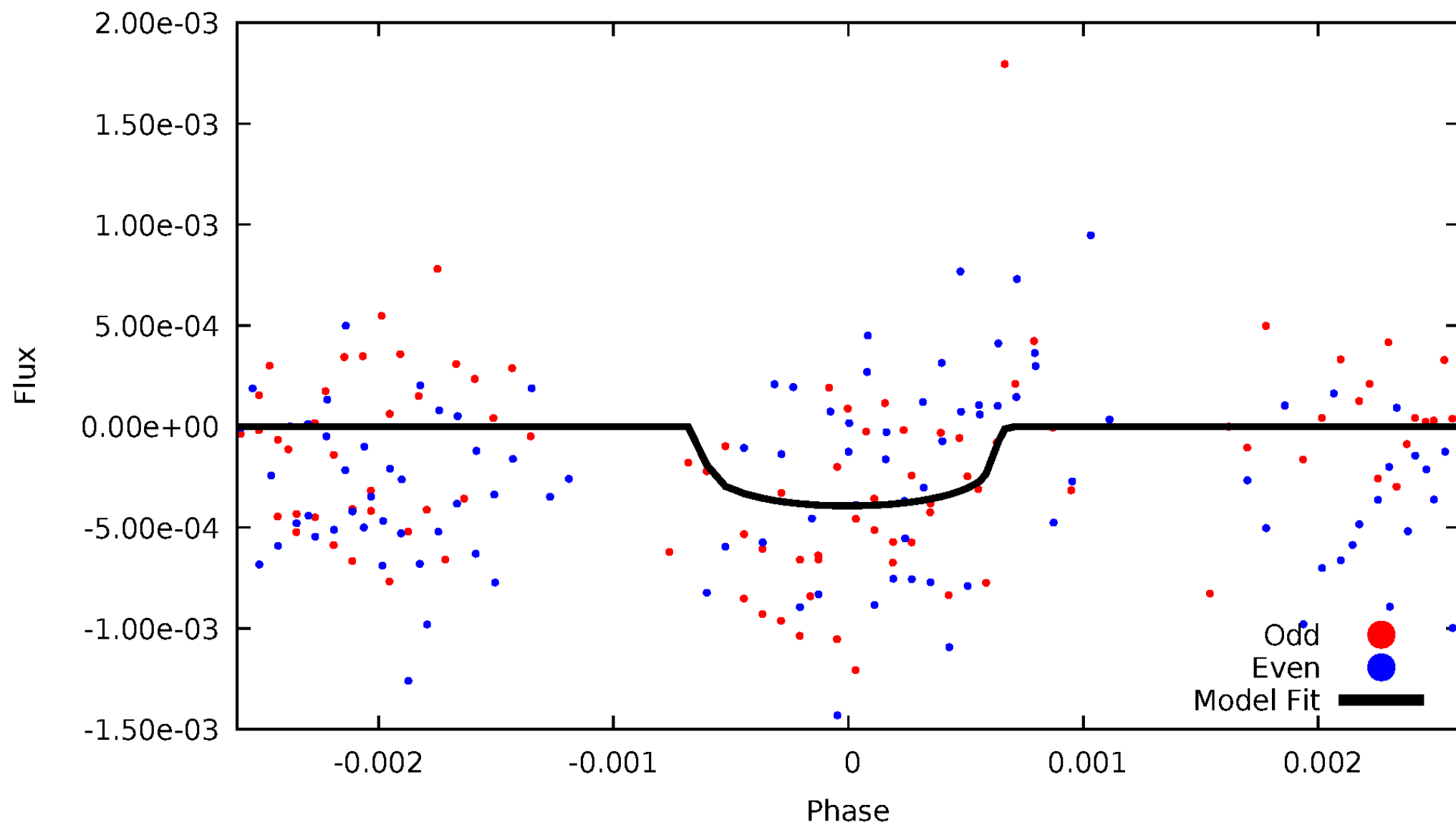


TCE 006435767-03



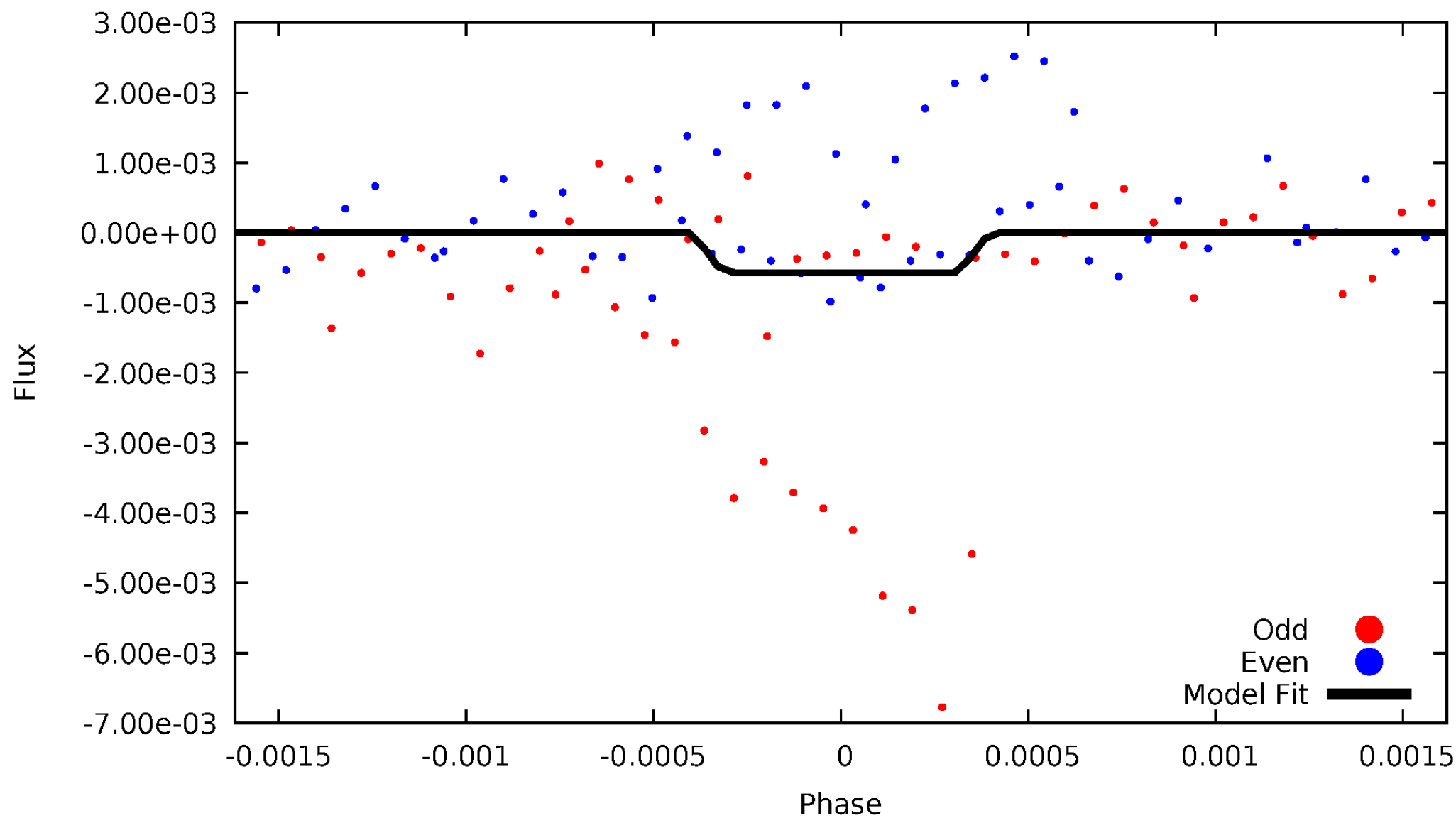
DV Odd/Even

TCE 006435767-03

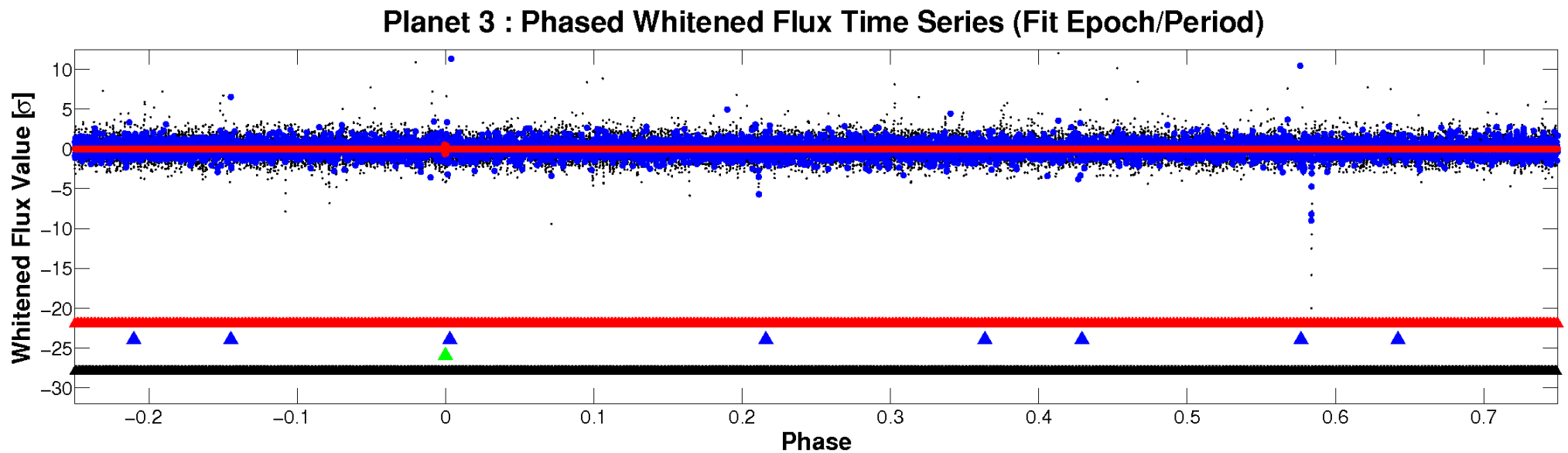
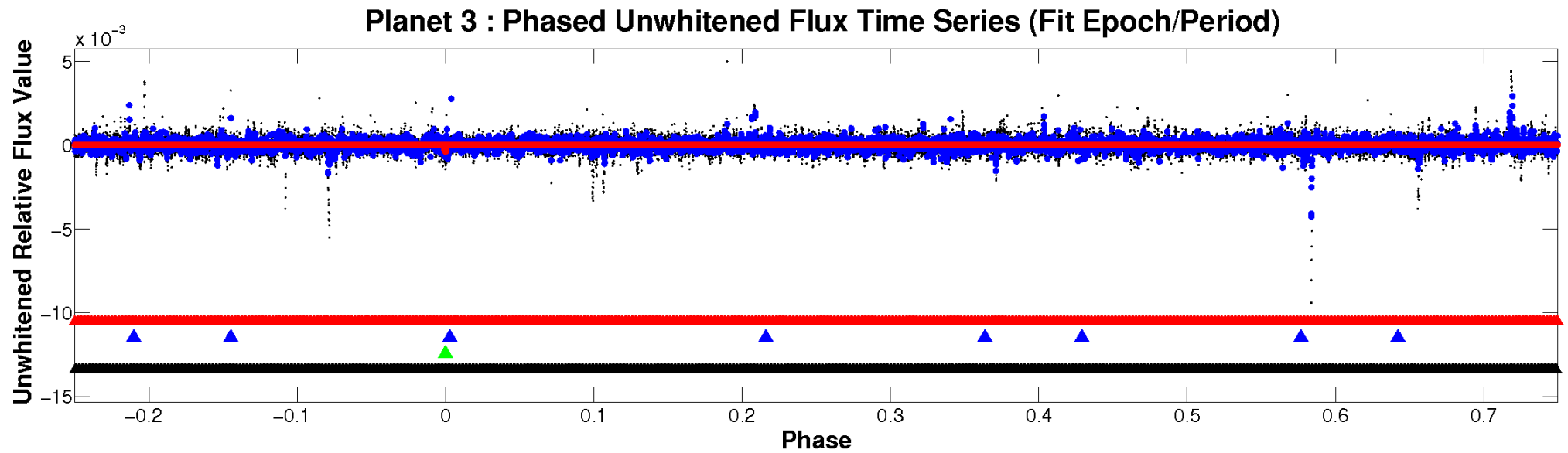


ALT Odd/Even

TCE 006435767-03

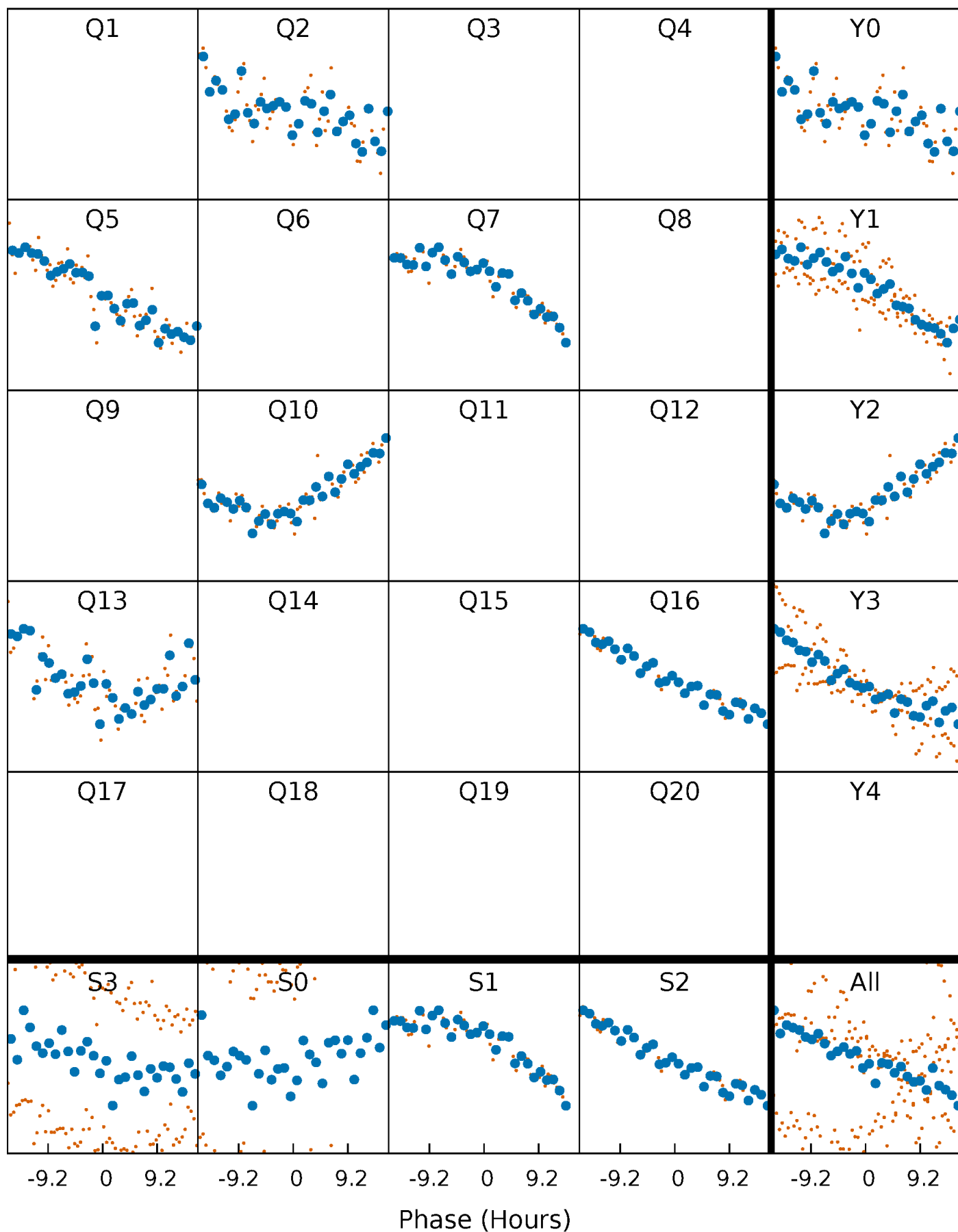


Non-Whitened Vs. Whitened Light Curve



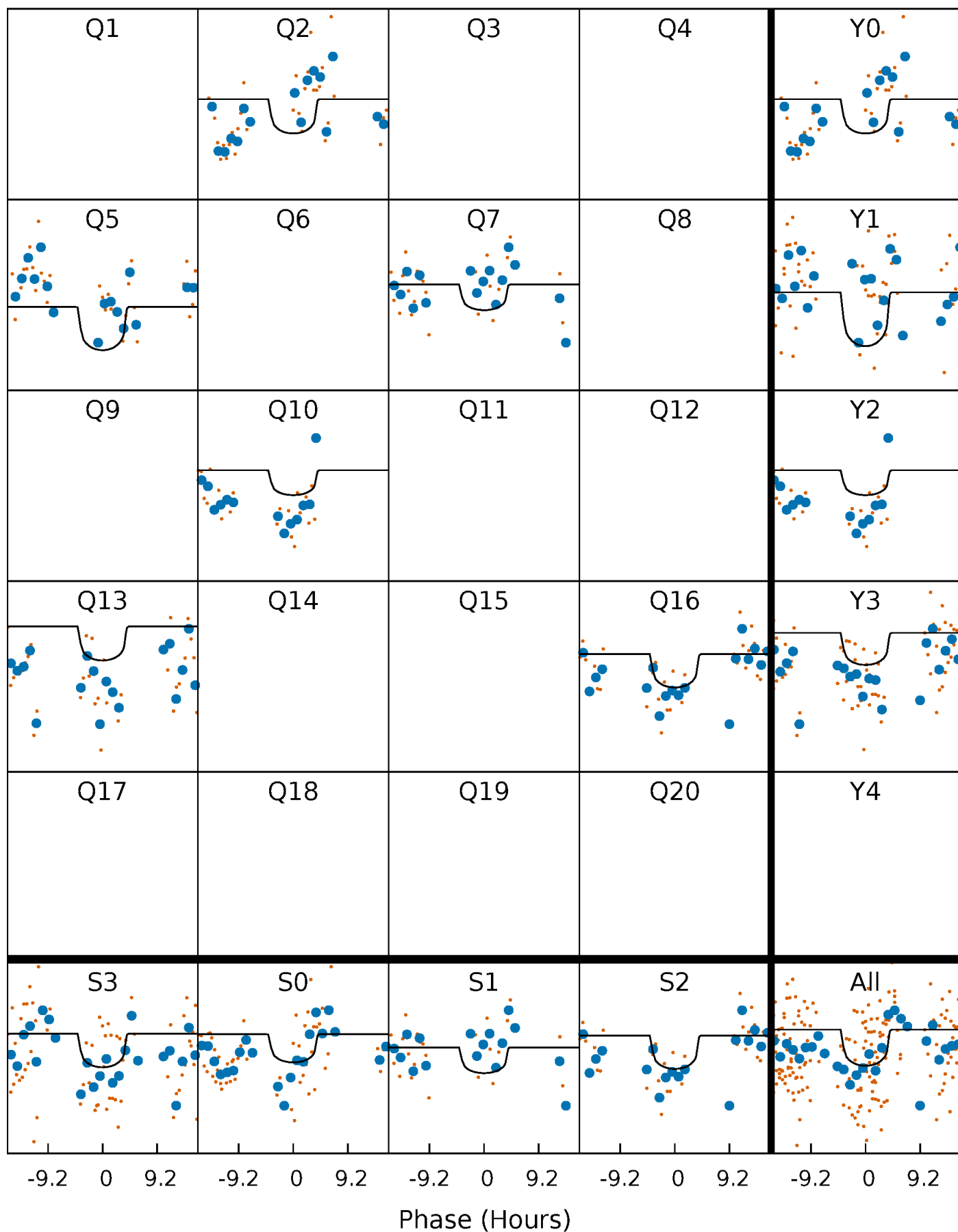
PDC Quarter-Phased Transit Curves

TCE 006435767-03 $P=257.440263$ Days $T_0=204.073968$ (BKJD)



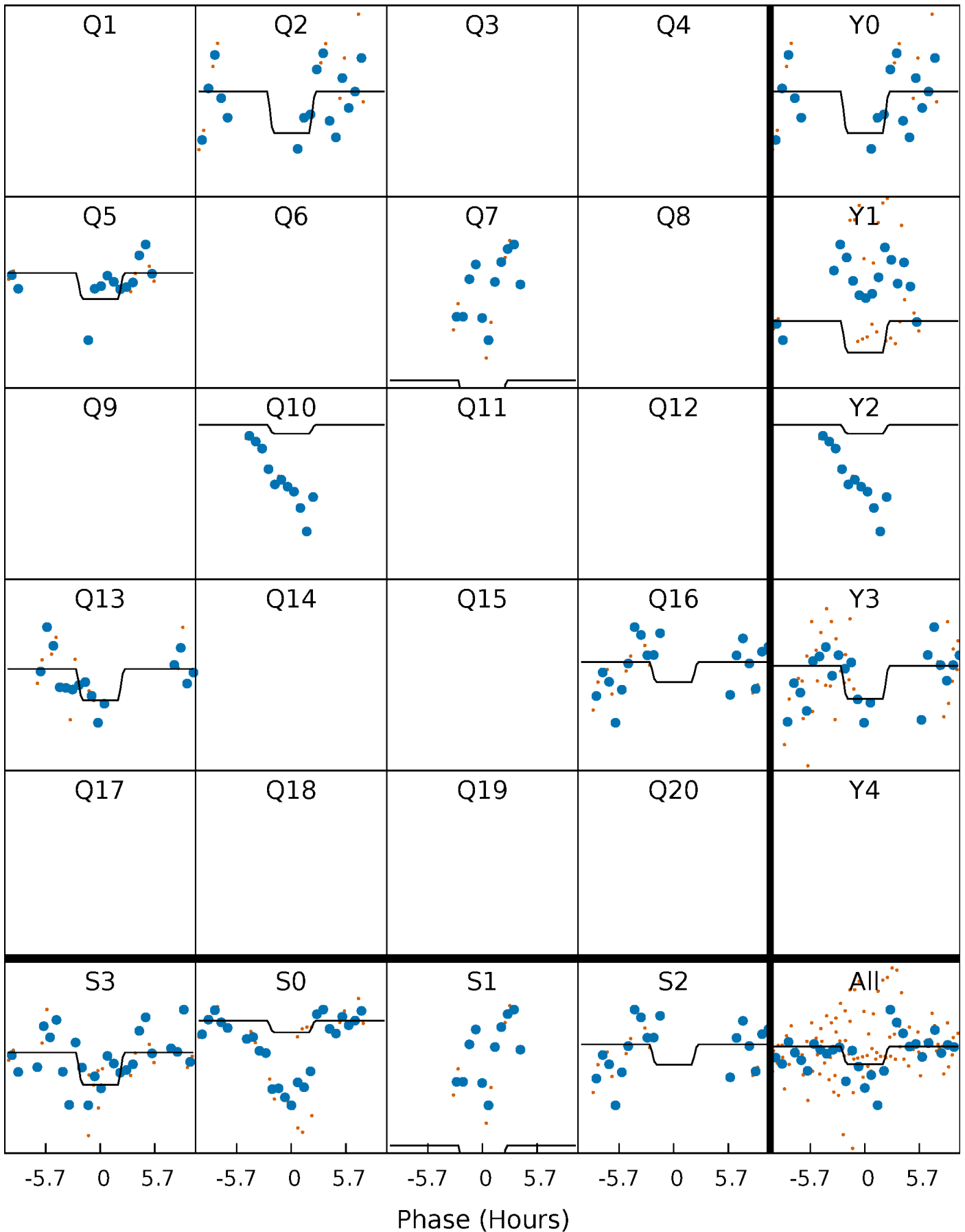
DV Quarter-Phased Transit Curves

TCE 006435767-03 $P=257.440263$ Days $T_0=204.073968$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

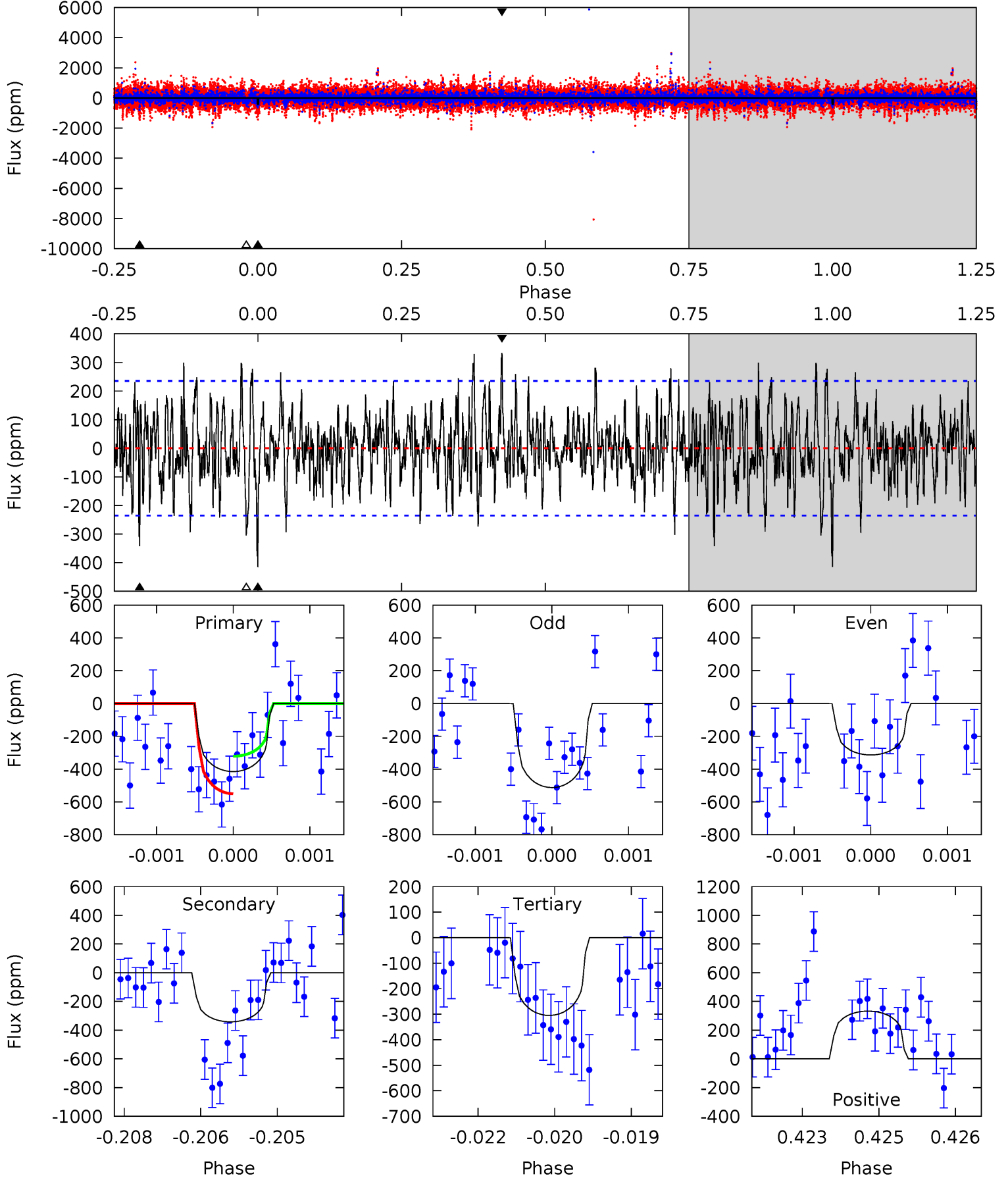
TCE 006435767-03 P=257.476478 Days $T_0=204.046768$ (BKJD)



DV Model-Shift Uniqueness Test

006435767-03, P = 257.440263 Days, E = 204.073968 Days

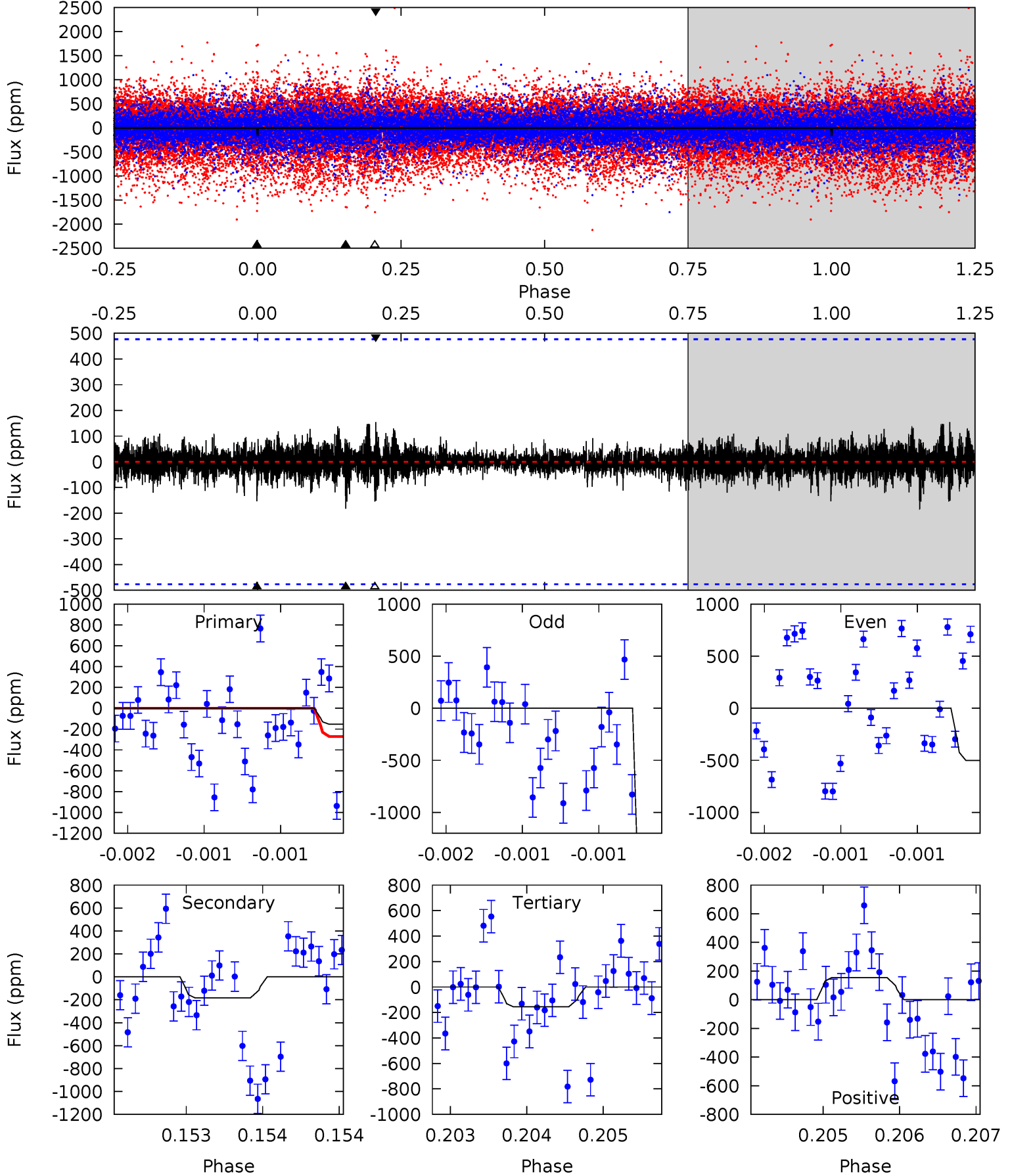
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.51	7.83	6.98	7.63	5.40	3.21	2.32	2.53	1.88	0.85	0.21	2.21	1.17	0.45	2.54



Alt Model-Shift Uniqueness Test

006435767-03, P = 257.476478 Days, E = 204.046768 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.77	2.11	1.79	1.78	5.51	3.38	0.38	-0.01	-0.00	0.33	0.33	18.4	1.43	0.46	0



Stellar Parameters For KIC 006435767

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5395^{+159}_{-143}	$4.593^{+0.037}_{-0.120}$	$-0.200^{+0.300}_{-0.300}$	$0.770^{+0.143}_{-0.061}$	$0.859^{+0.078}_{-0.096}$	$2.654^{+0.453}_{-1.003}$
	+3%/-3%	+1%/-3%	+150%/-150%	+19%/-8%	+9%/-11%	+17%/-38%
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 006435767-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-342 ± 44	$2.55^{+2.31}_{-1.69}$	342^{+16}_{-13}	4489^{+2952}_{-973}	$16353^{+133853}_{-12005}$
Alt.	-183 ± 87	$2.72^{+2.51}_{-1.84}$	343^{+16}_{-13}	3813^{+2313}_{-755}	7117^{+59254}_{-5483}

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 $A_{\text{obs}} \gg 1.0$

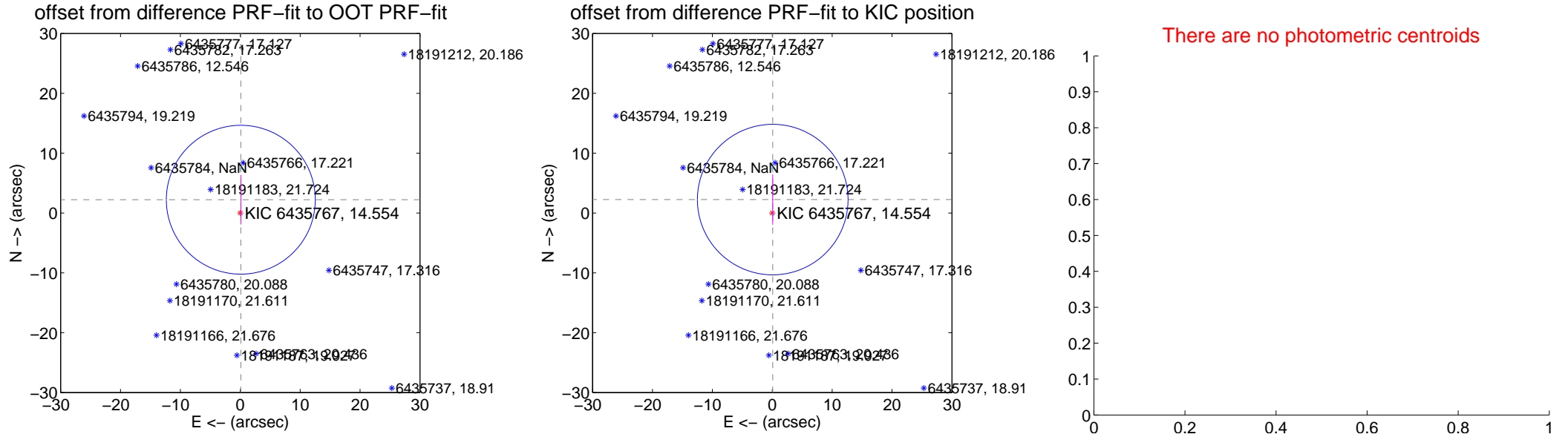
DV Centroid Data

Supplemental centroid analysis for 006435767-03. Kepler magnitude: 14.55. Transit SNR 5.02

There are 2 quarters with good PRF difference image offsets

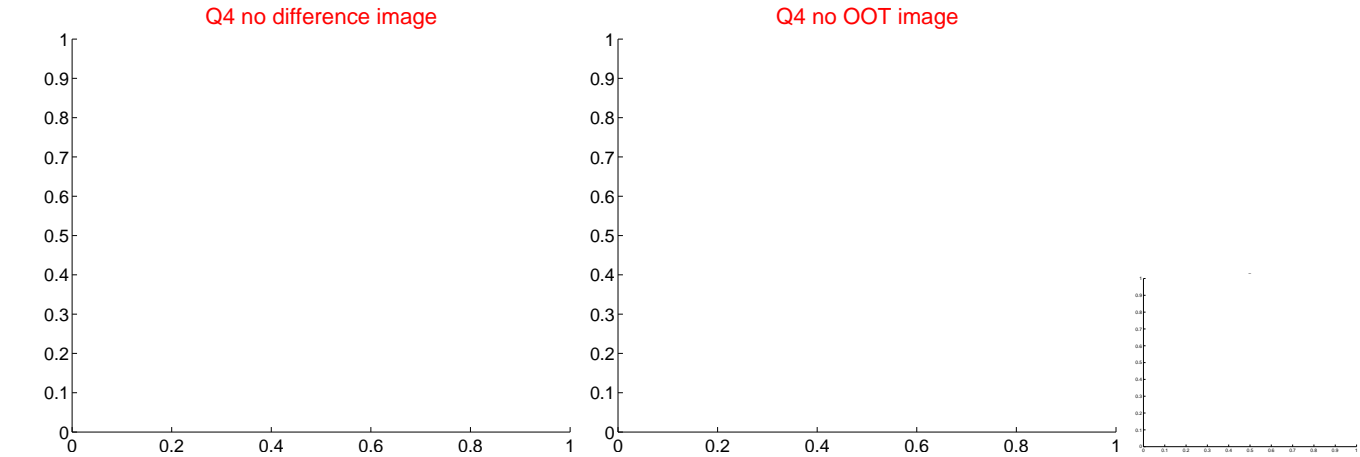
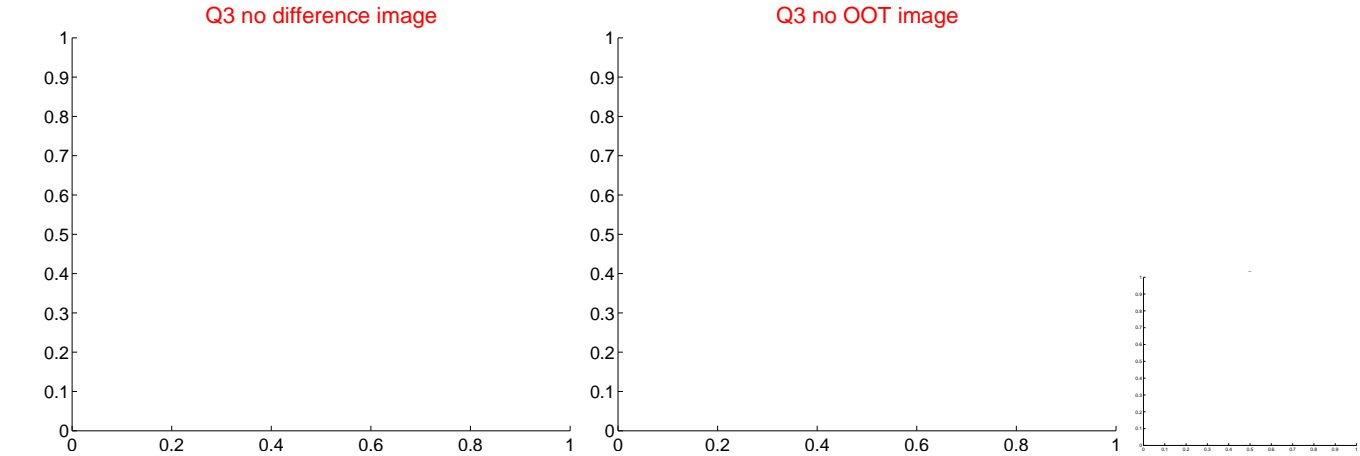
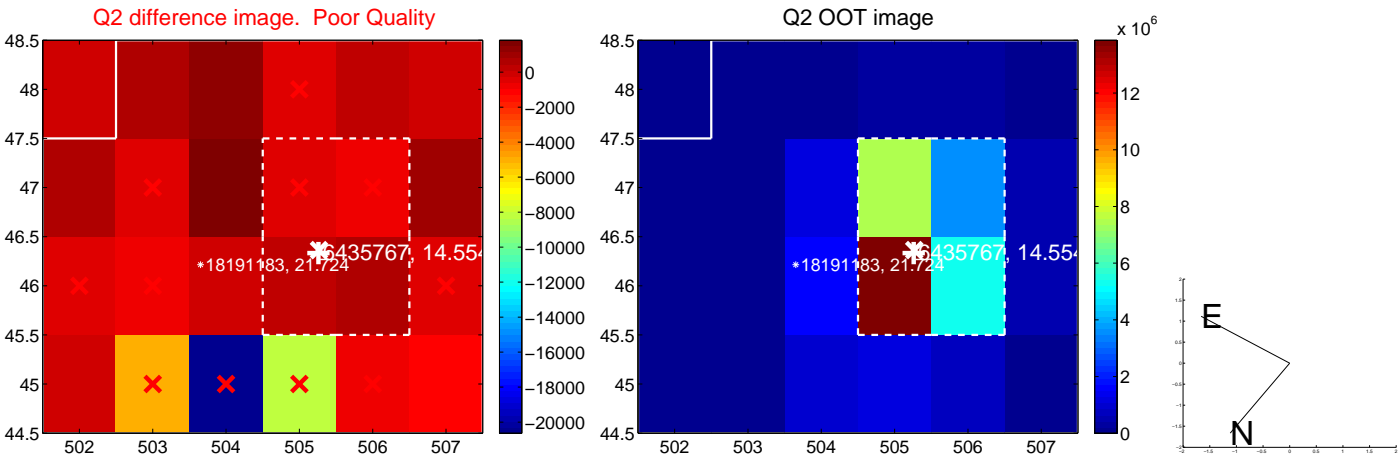
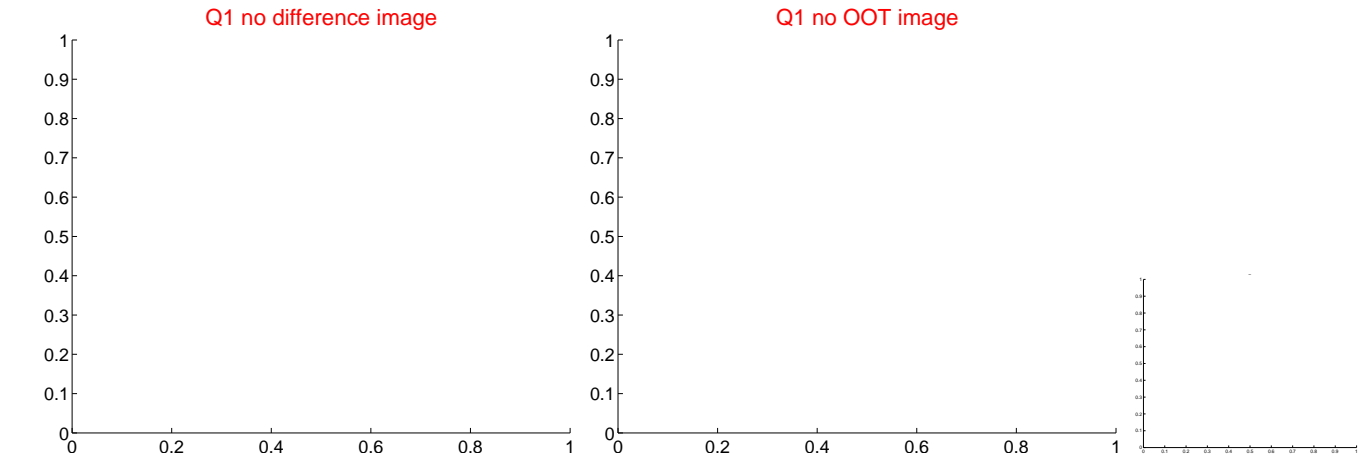
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.222 ± 4.145	0.54	-0.087 ± 0.091	2.220 ± 4.148
PRF-fit source offset from KIC position	2.245 ± 4.192	0.54	-0.079 ± 0.143	2.244 ± 4.194
photometric centroid source offset	—	—	—	—

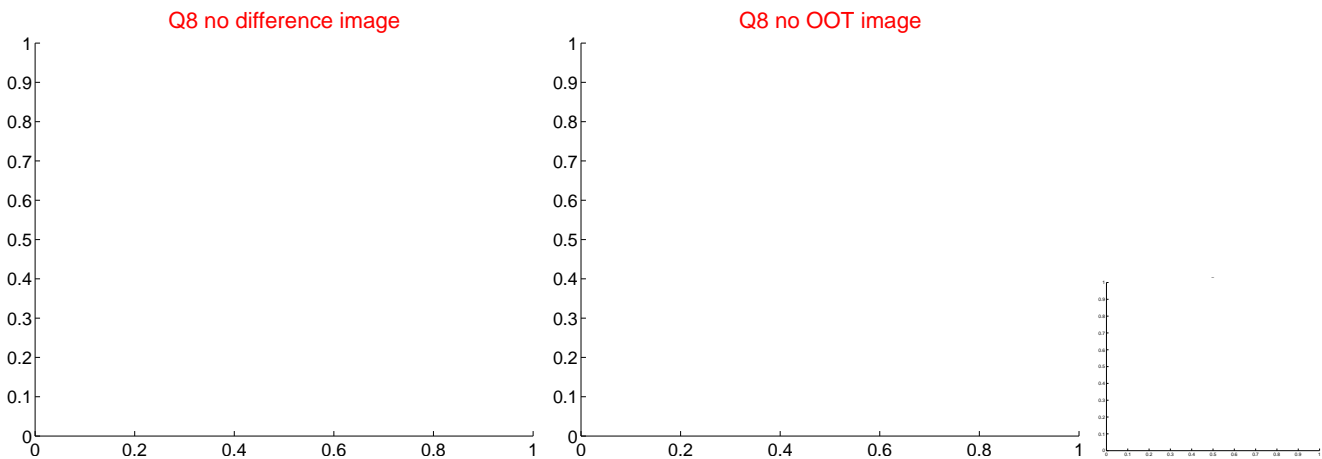
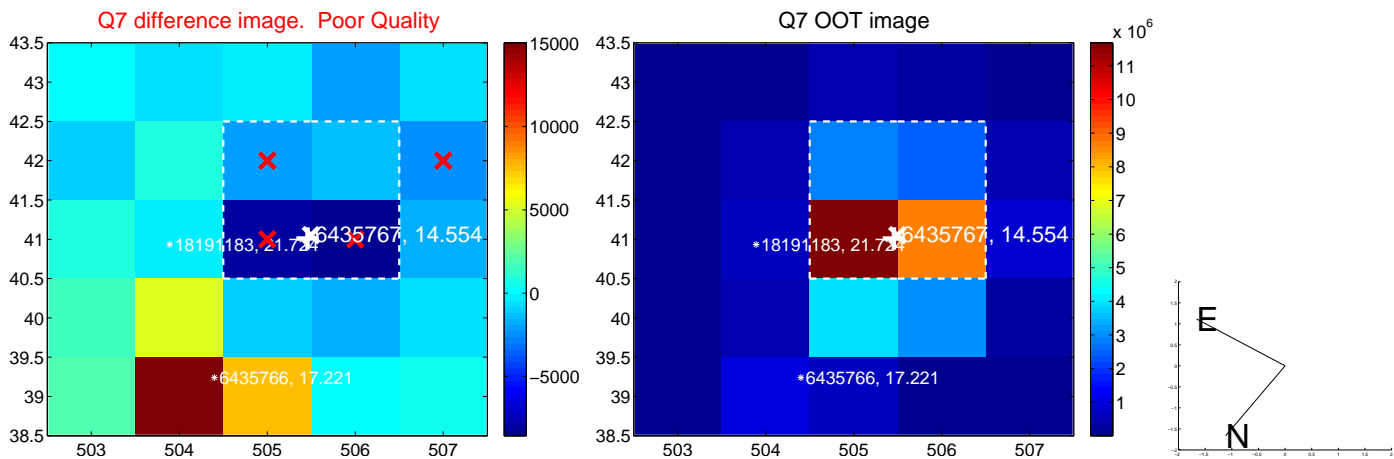
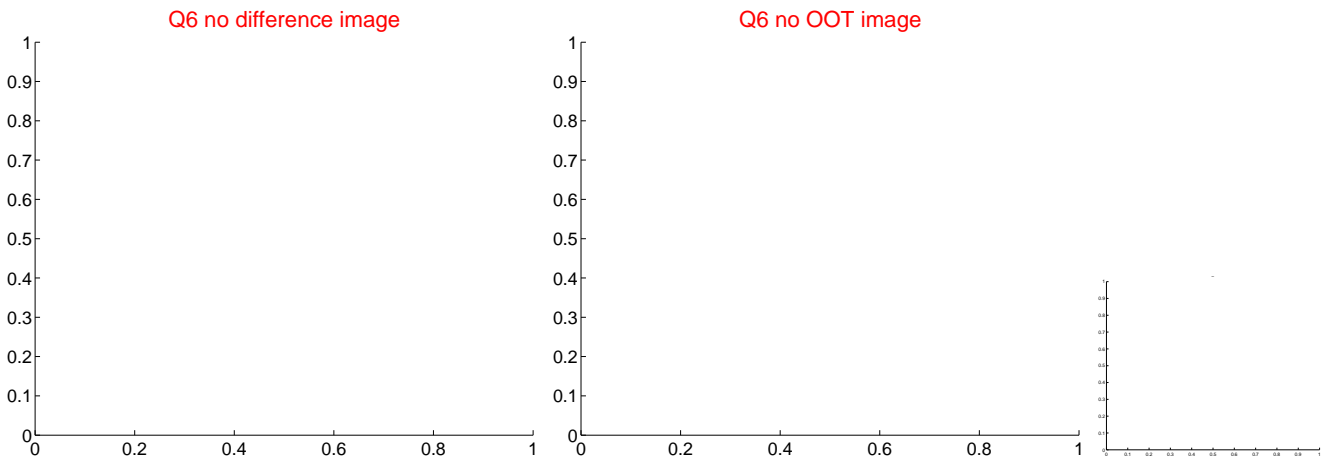
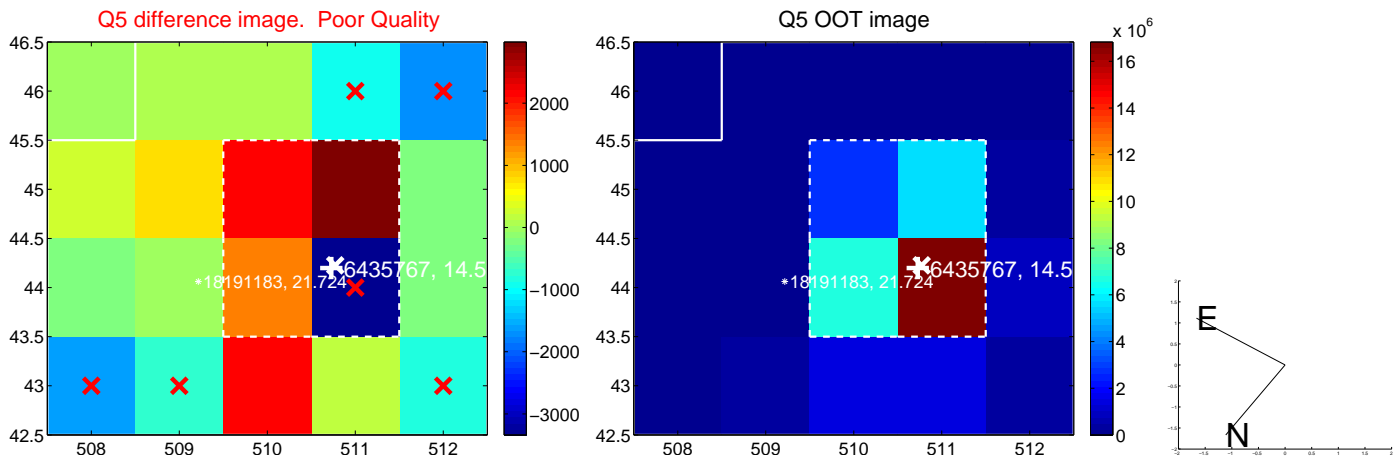


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

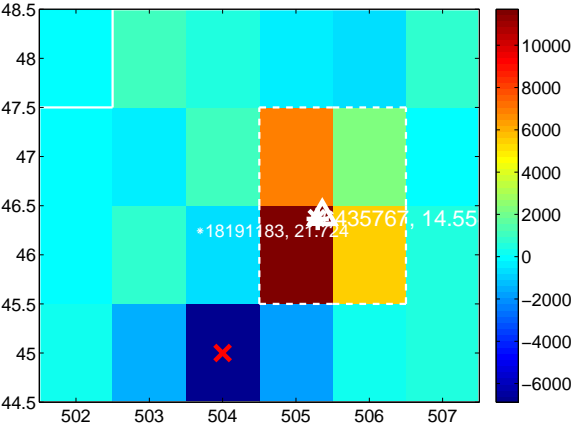
Q9 no difference image



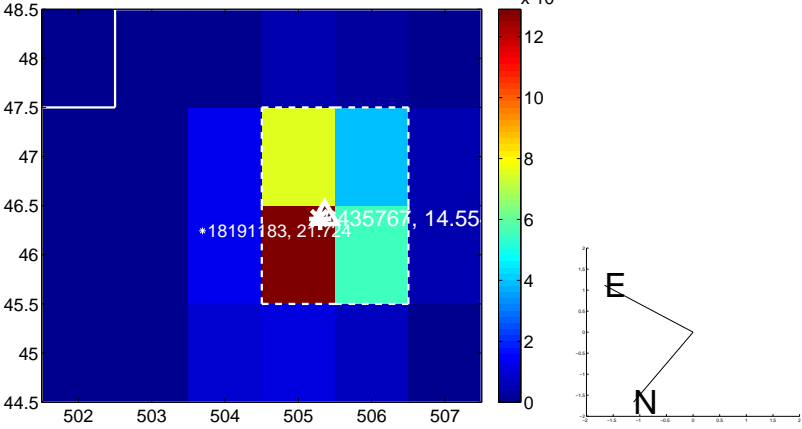
Q9 no OOT image



Q10 difference image



Q10 OOT image



Q11 no difference image



Q11 no OOT image



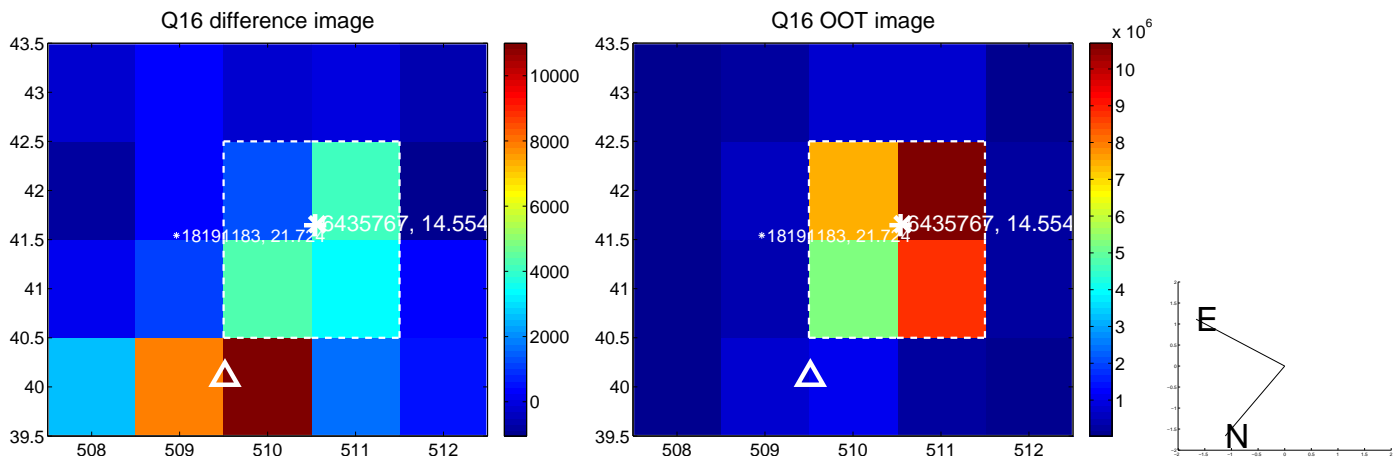
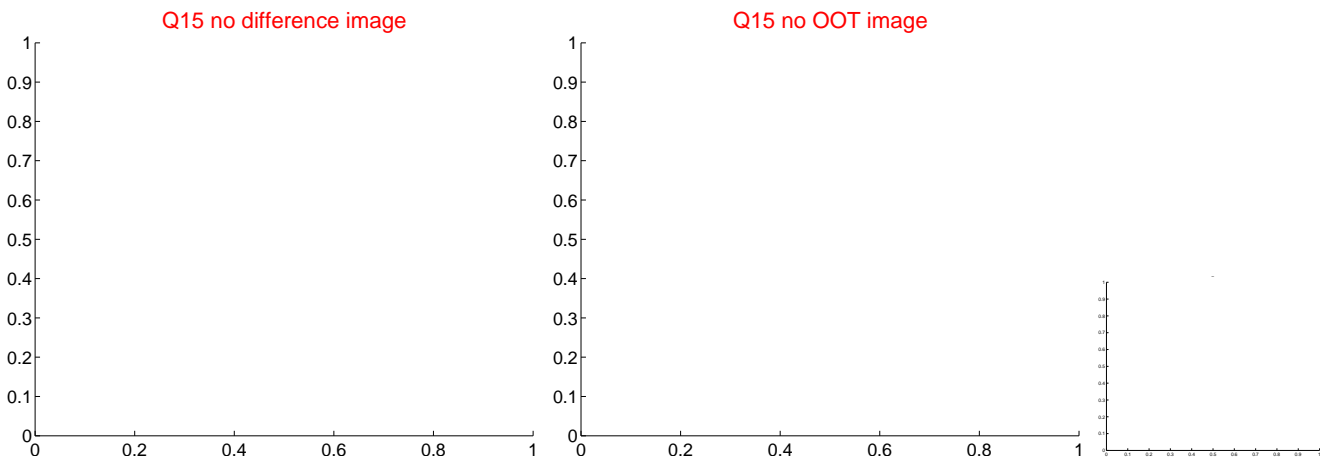
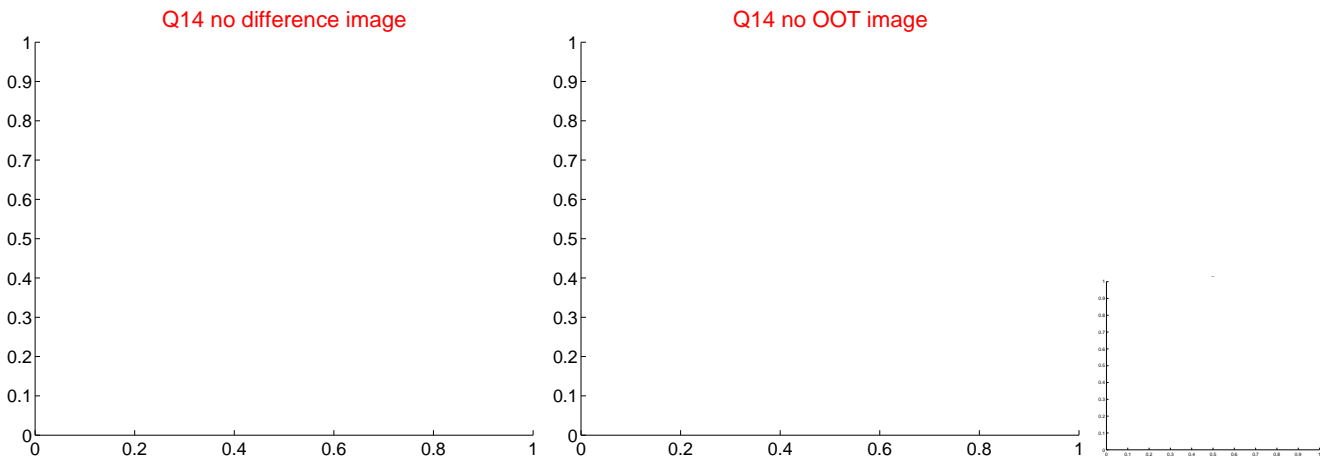
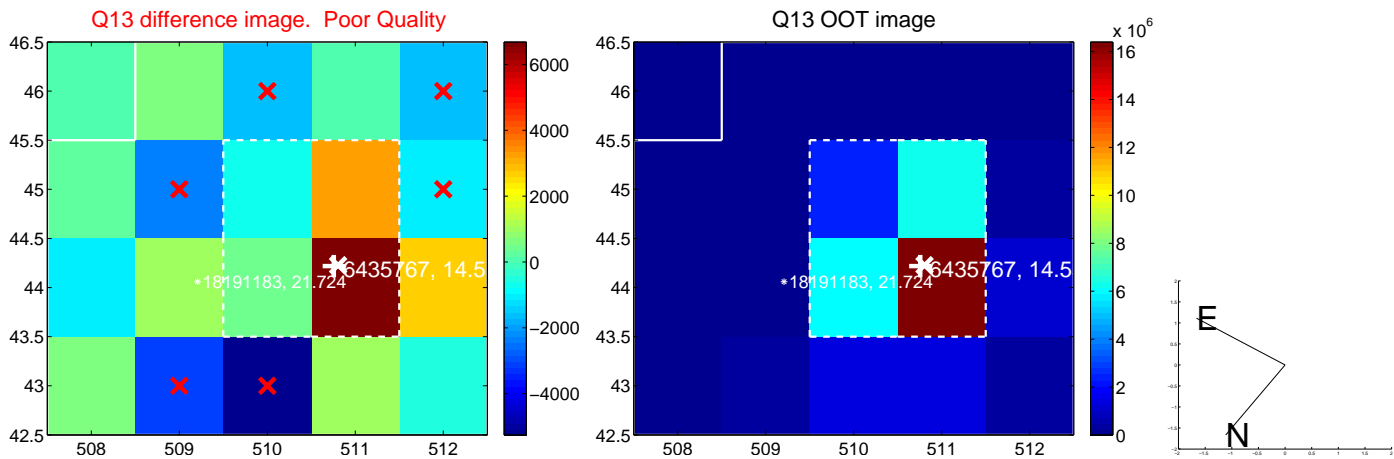
Q12 no difference image



Q12 no OOT image



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



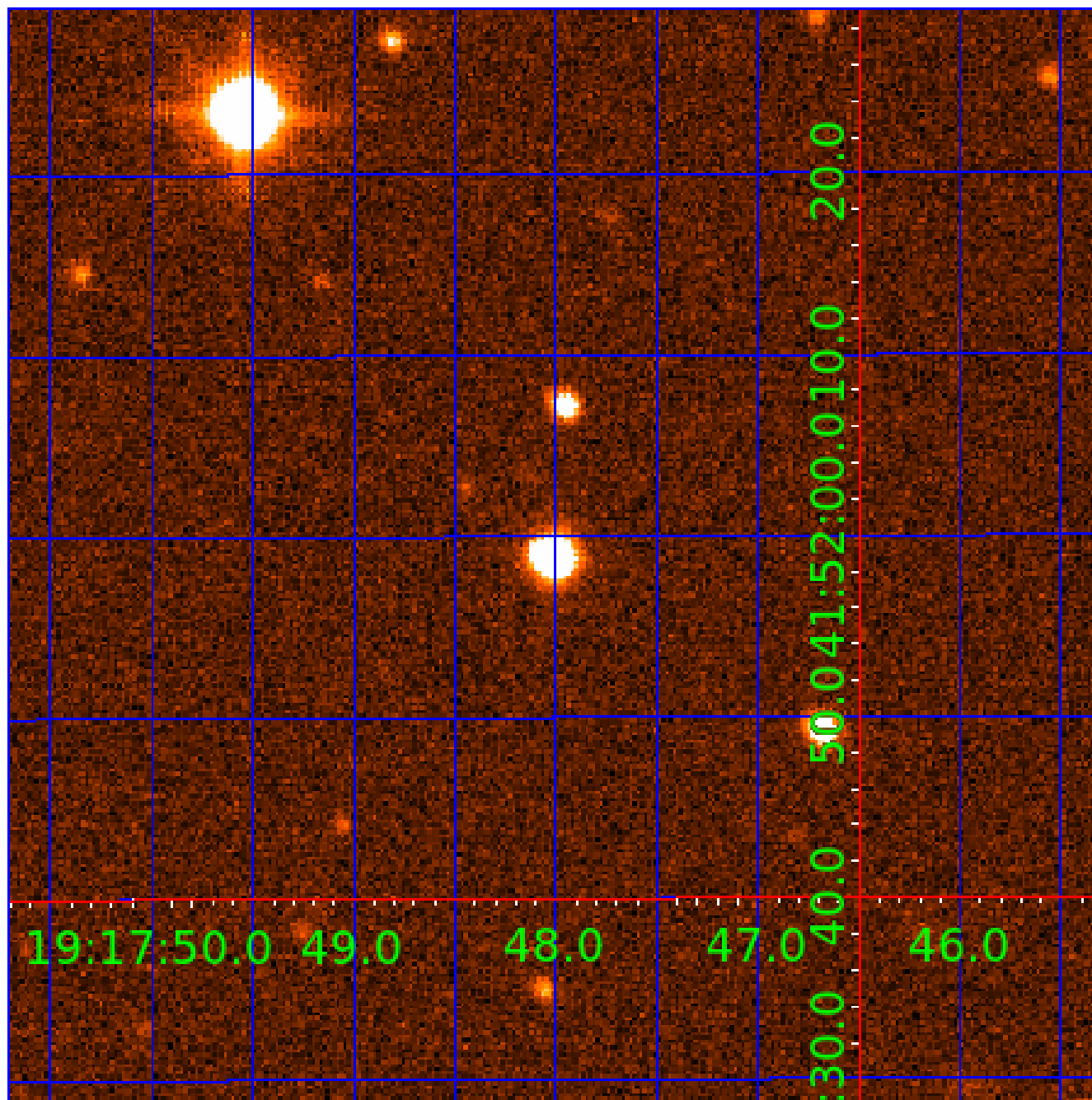
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 006435767

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})
006435767-01	OBS	No	0.594460	131.996753	56.4	2.142	9.0	13.2	0.77	5395	0.69	2624.36
006435767-02	OBS	No	202.584637	166.818185	326.9	7.992	9.6	3.5	0.77	5395	1.64	1.10
006435767-03	OBS	No	257.440263	204.073968	393.6	8.037	9.3	5.0	0.77	5395	1.62	0.80
006435767-04	OBS	No	0.594434	131.705029	31.9	3.492	8.2	8.8	0.77	5395	0.43	2624.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006435767-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
006435767-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_FEW_DIFFS
006435767-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006435767-04	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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

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

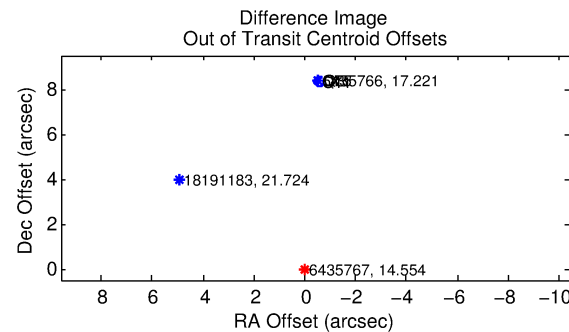
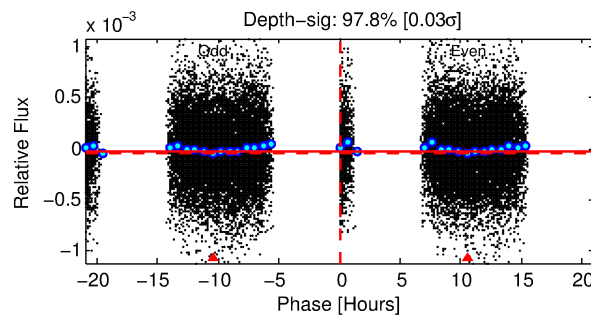
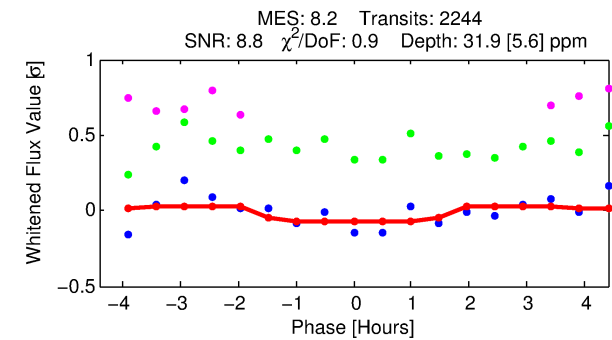
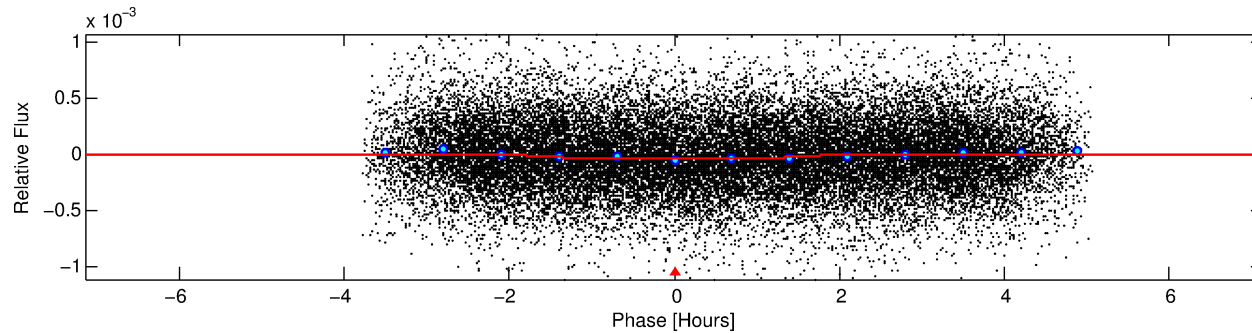
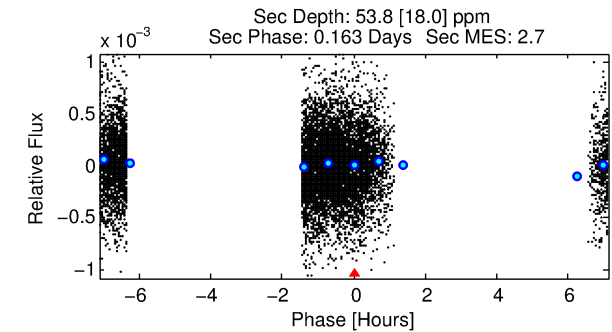
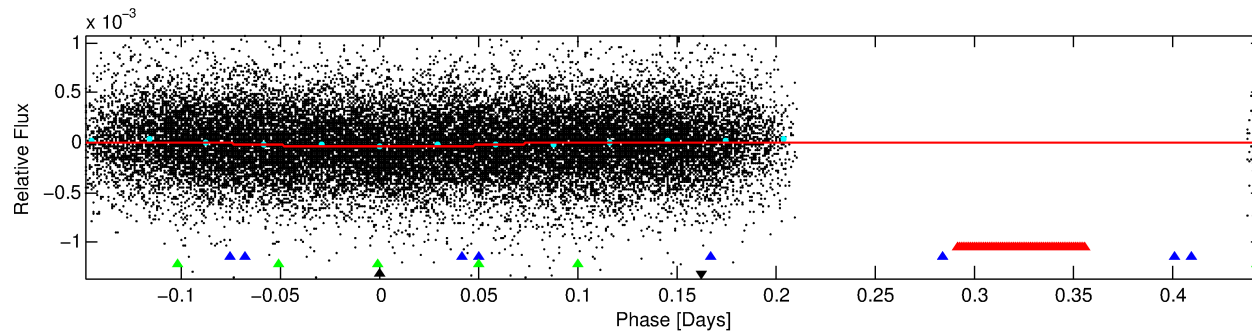
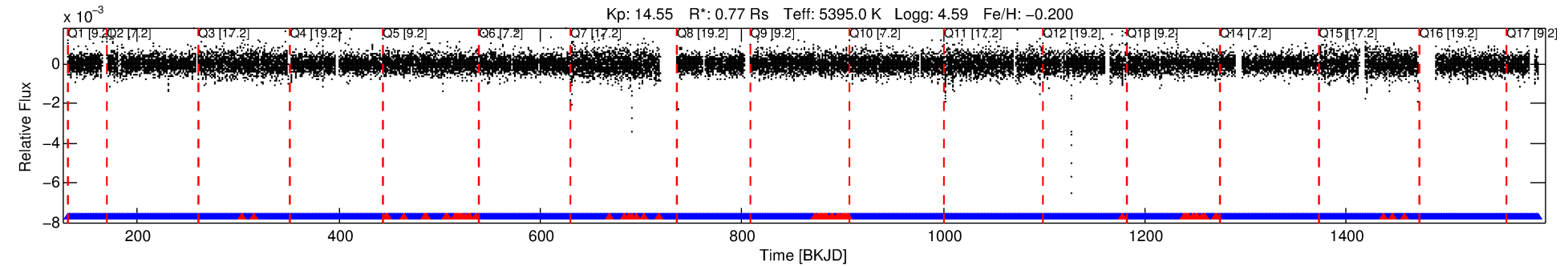
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006435767-04

No Significant Match Found

DV One-Page Summary

KIC: 6435767 Candidate: 4 of 4 Period: 0.594 d



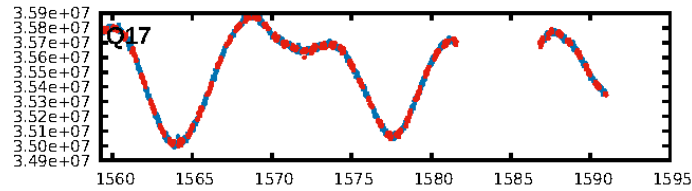
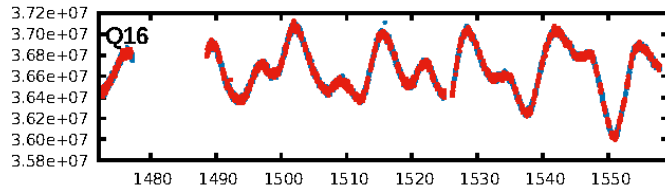
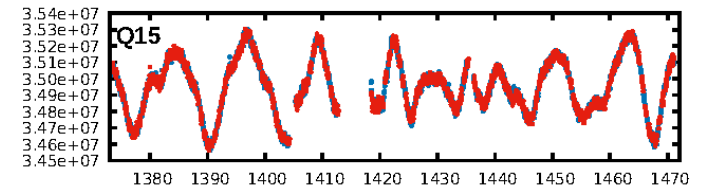
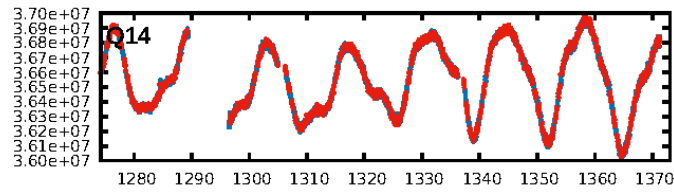
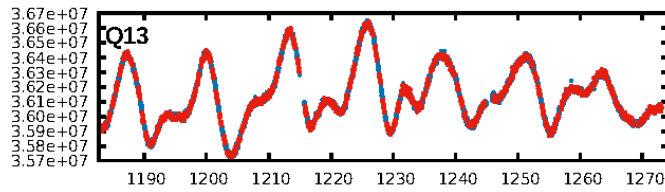
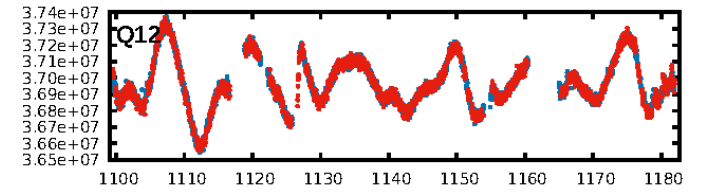
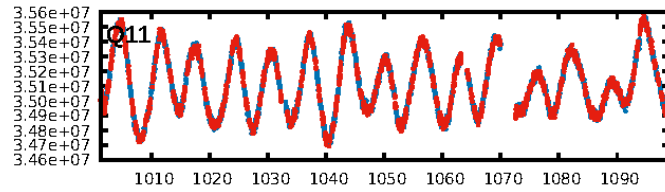
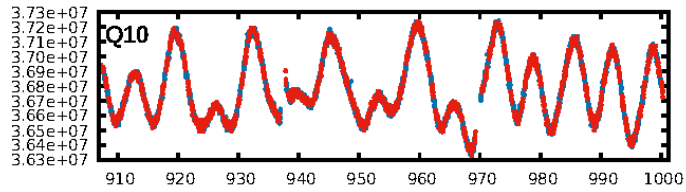
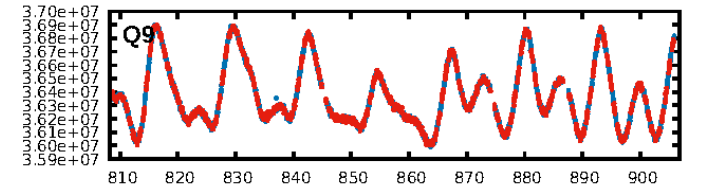
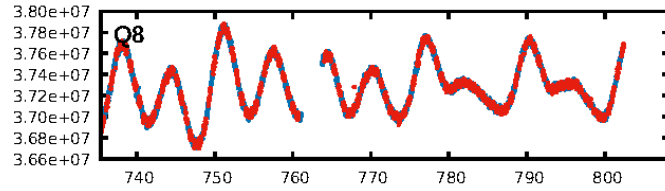
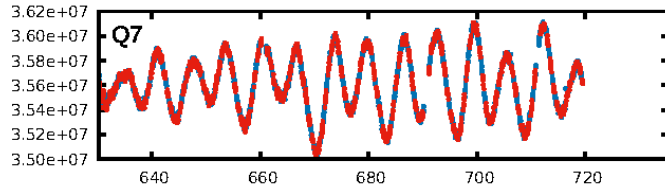
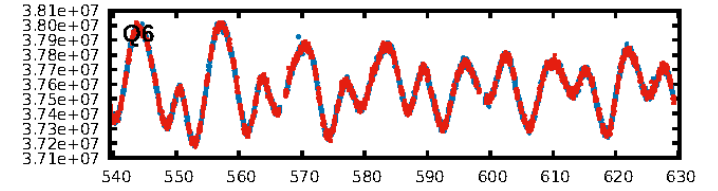
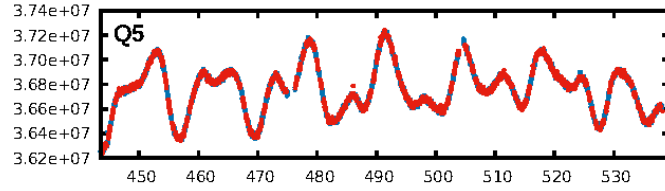
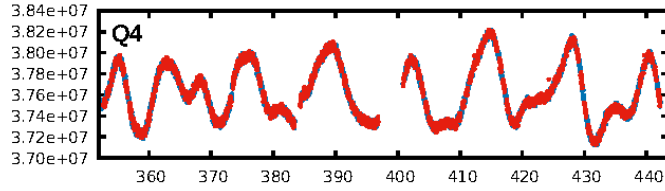
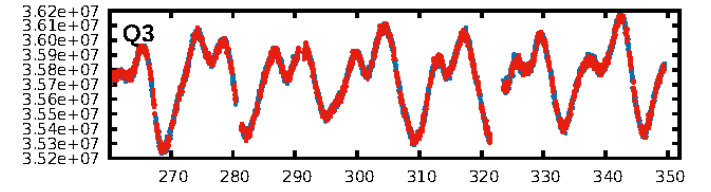
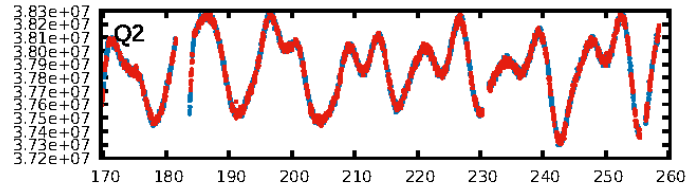
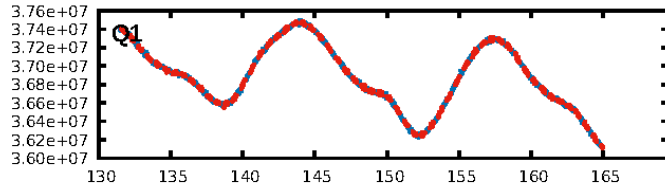
DV Fit Results:

Period = 0.59443 [0.00001] d
Epoch = 131.7050 [0.0038] BKJD
Rp/R* = 0.0051 [0.0077]
a/R* = 1.44 [4.52]
b = 0.10 [60.74]
Seff = 2624.52 [659.58]
Teq = 1825 [115] K
Rp = 0.43 [0.65] Re
a = 0.0131 [0.0020] AU
Ag = 27.81 [84.79] [0.32σ]
Teffp = 6480 [4930] K [0.94σ]

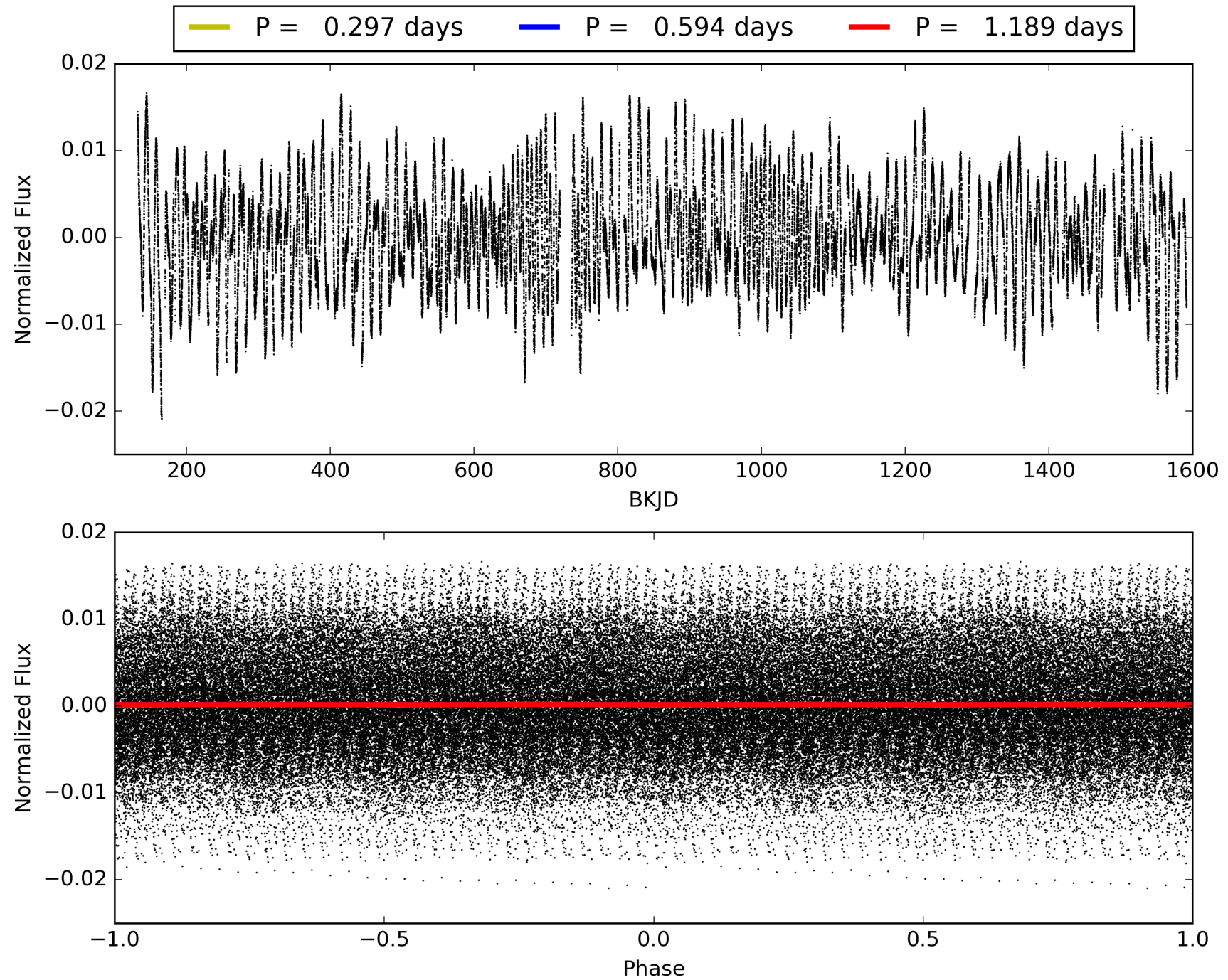
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [2069/2141]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 8.352 arcsec [124.64σ]
KicOffset-rm: 8.564 arcsec [115.91σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 006435767-04, PDC Light Curves

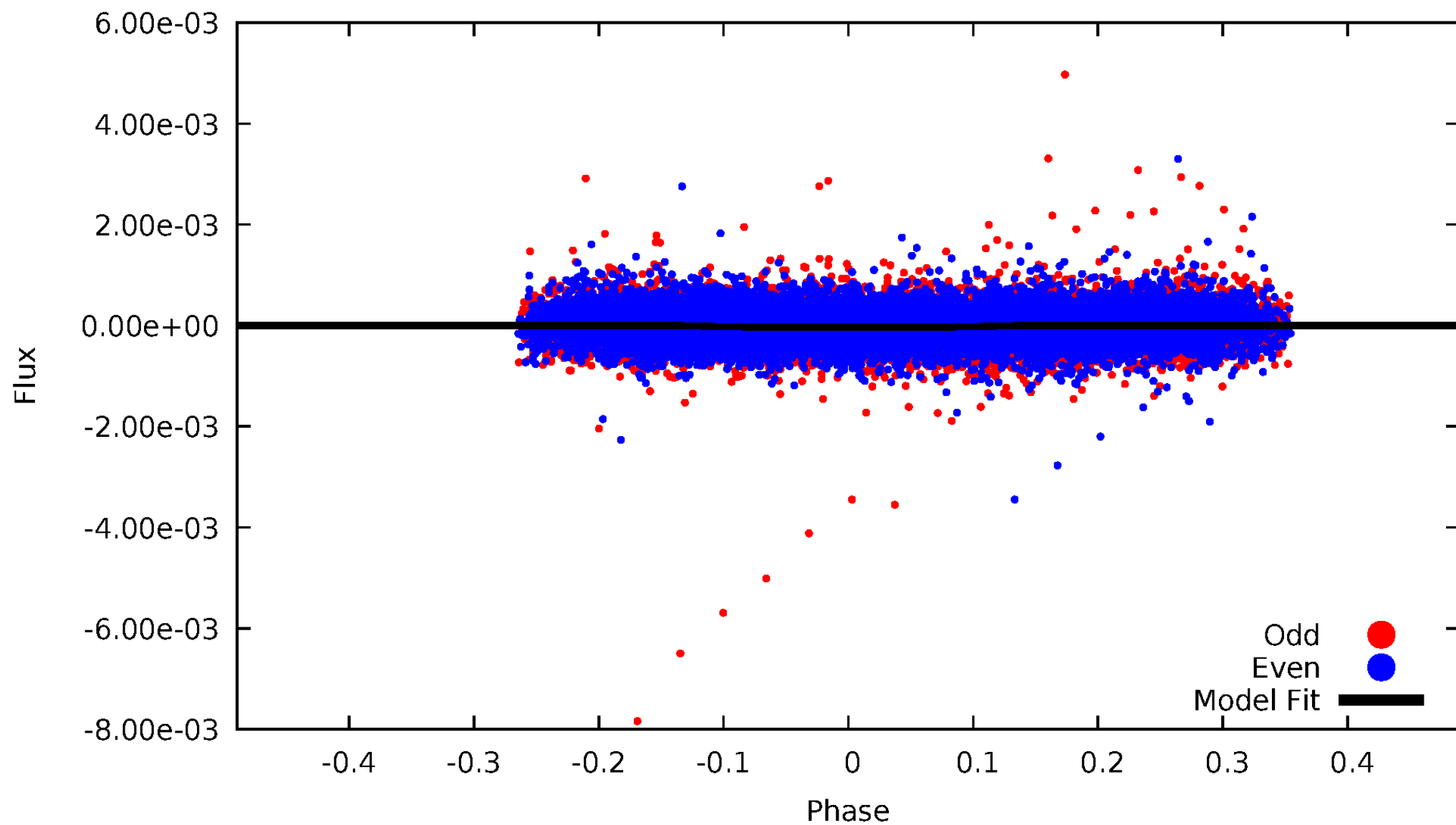


TCE 006435767-04



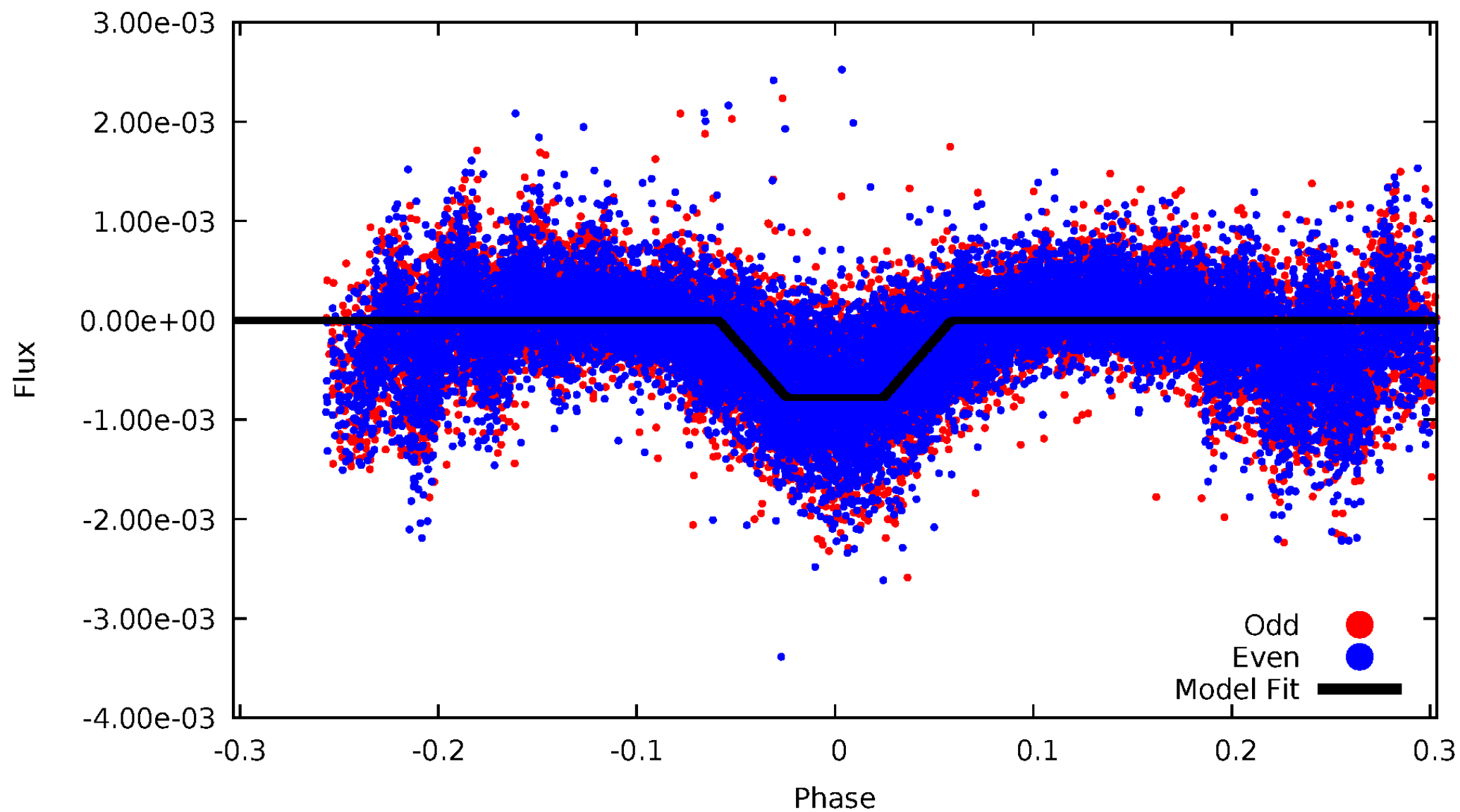
DV Odd/Even

TCE 006435767-04



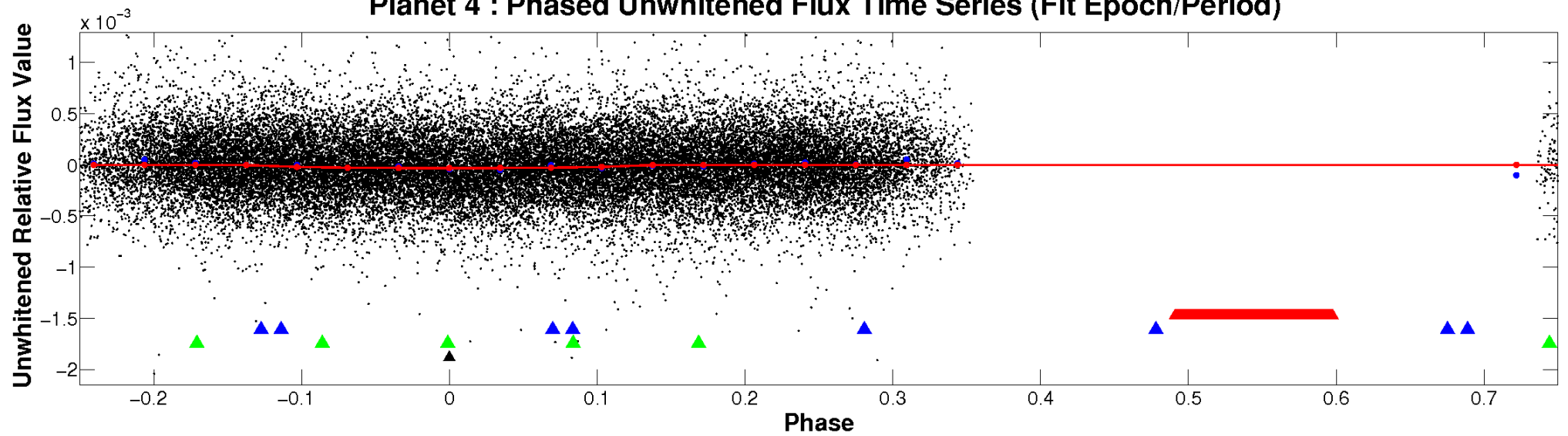
ALT Odd/Even

TCE 006435767-04

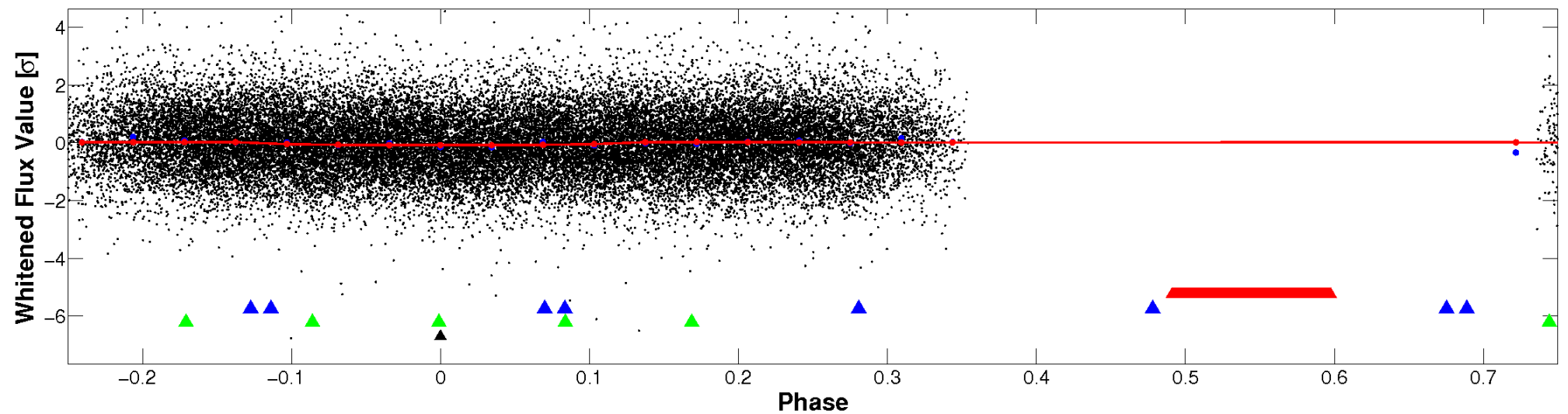


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

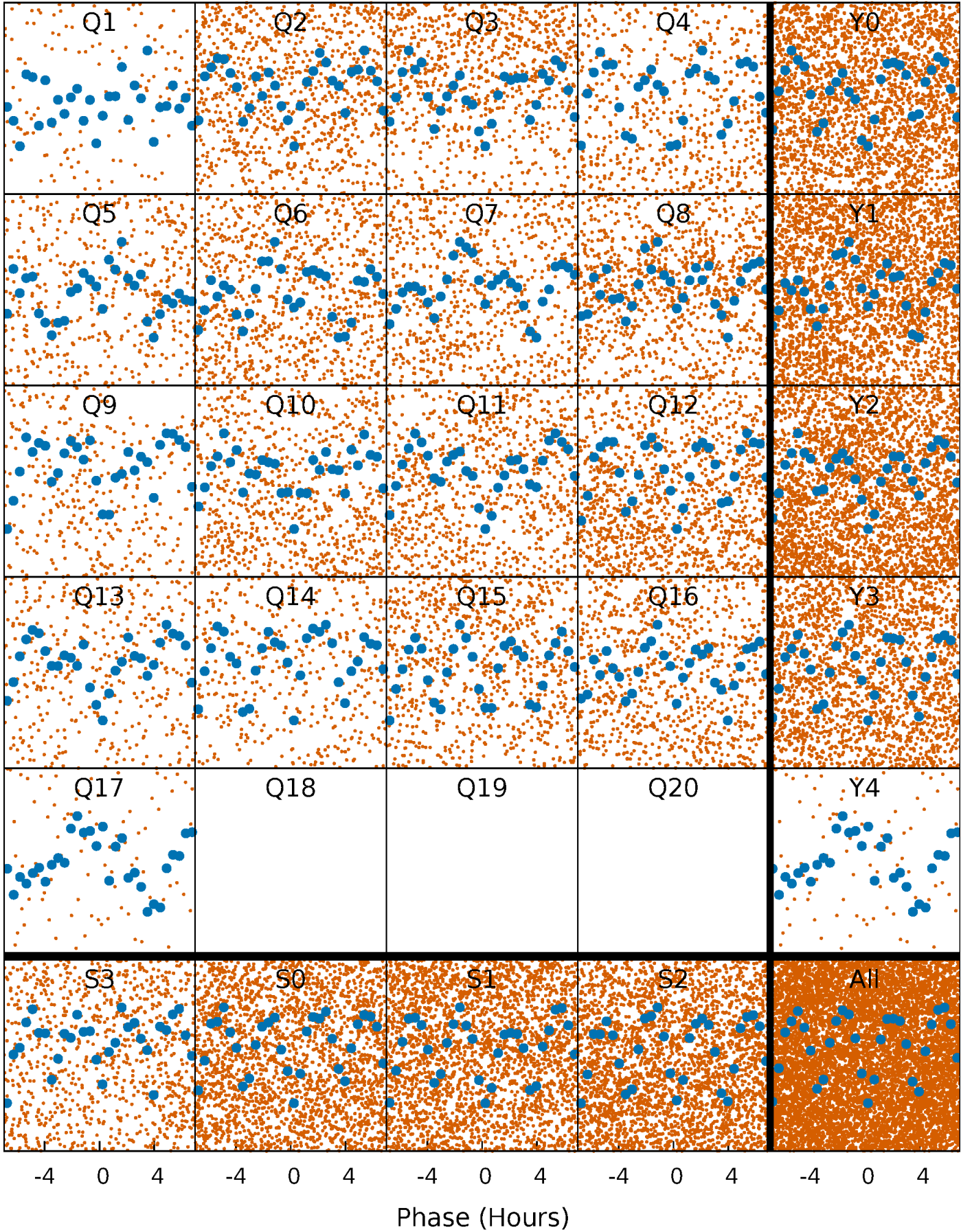


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



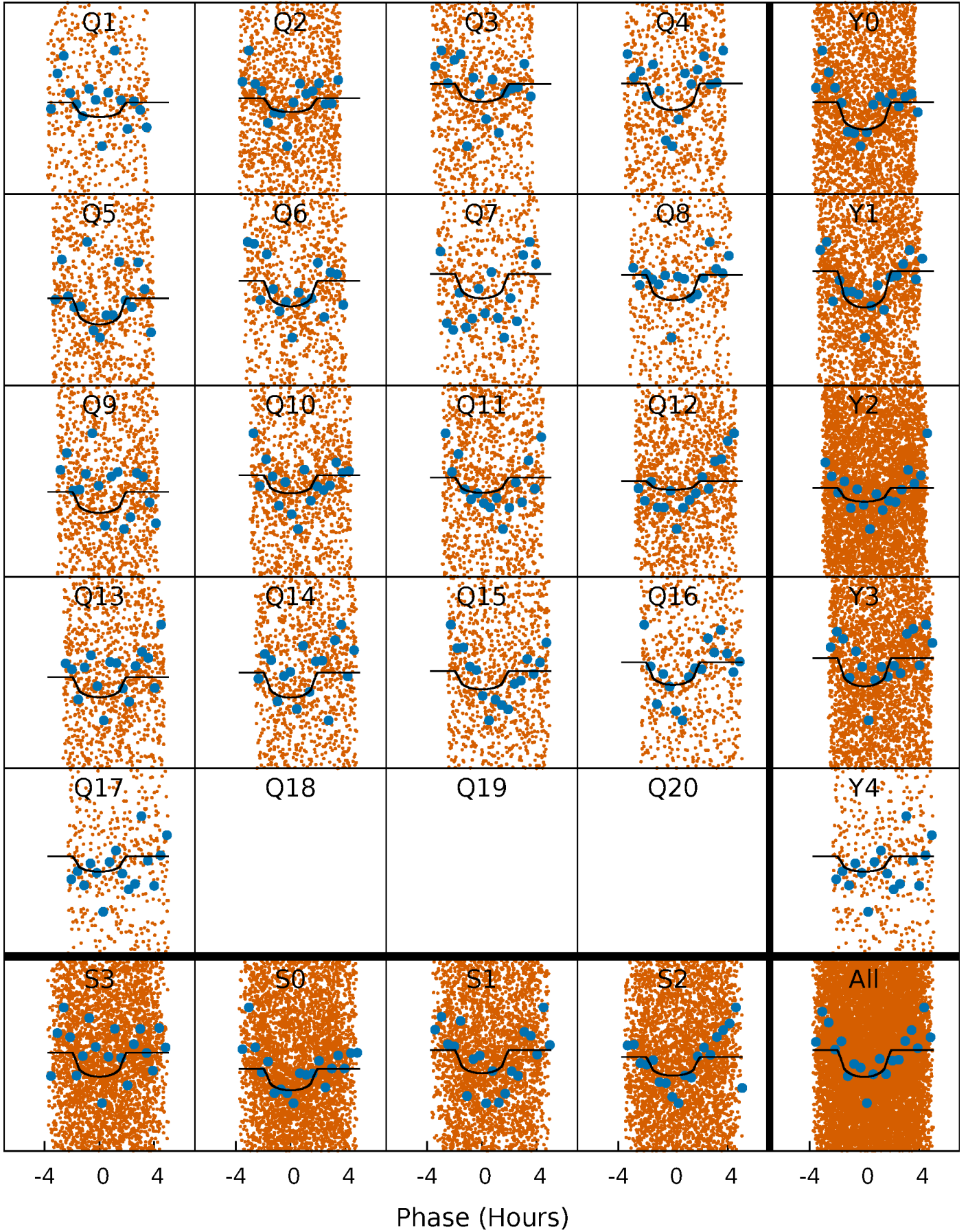
PDC Quarter-Phased Transit Curves

TCE 006435767-04 $P = 0.594434$ Days $T_0 = 131.705029$ (BKJD)



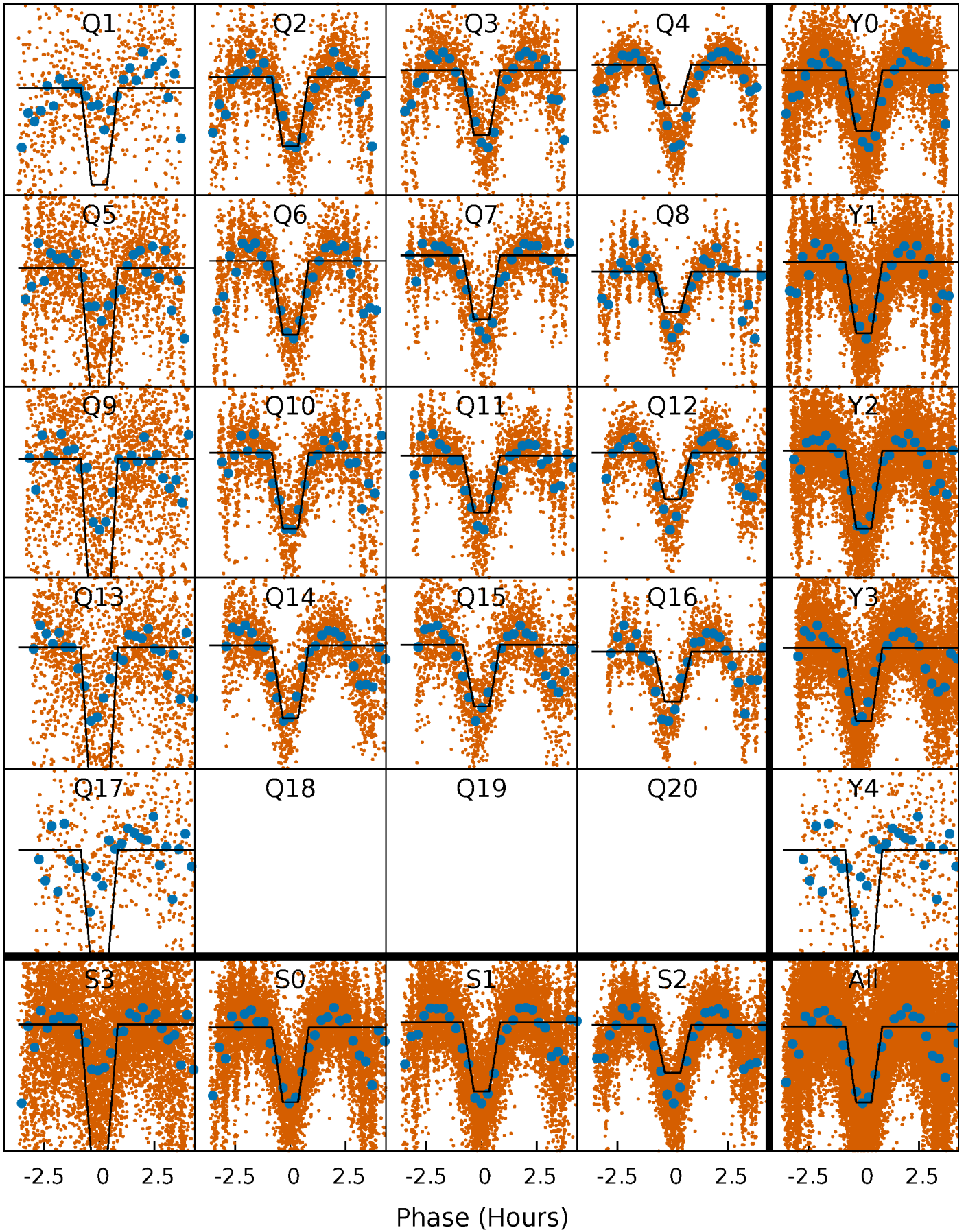
DV Quarter-Phased Transit Curves

TCE 006435767-04 P= 0.594434 Days $T_0=131.705029$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

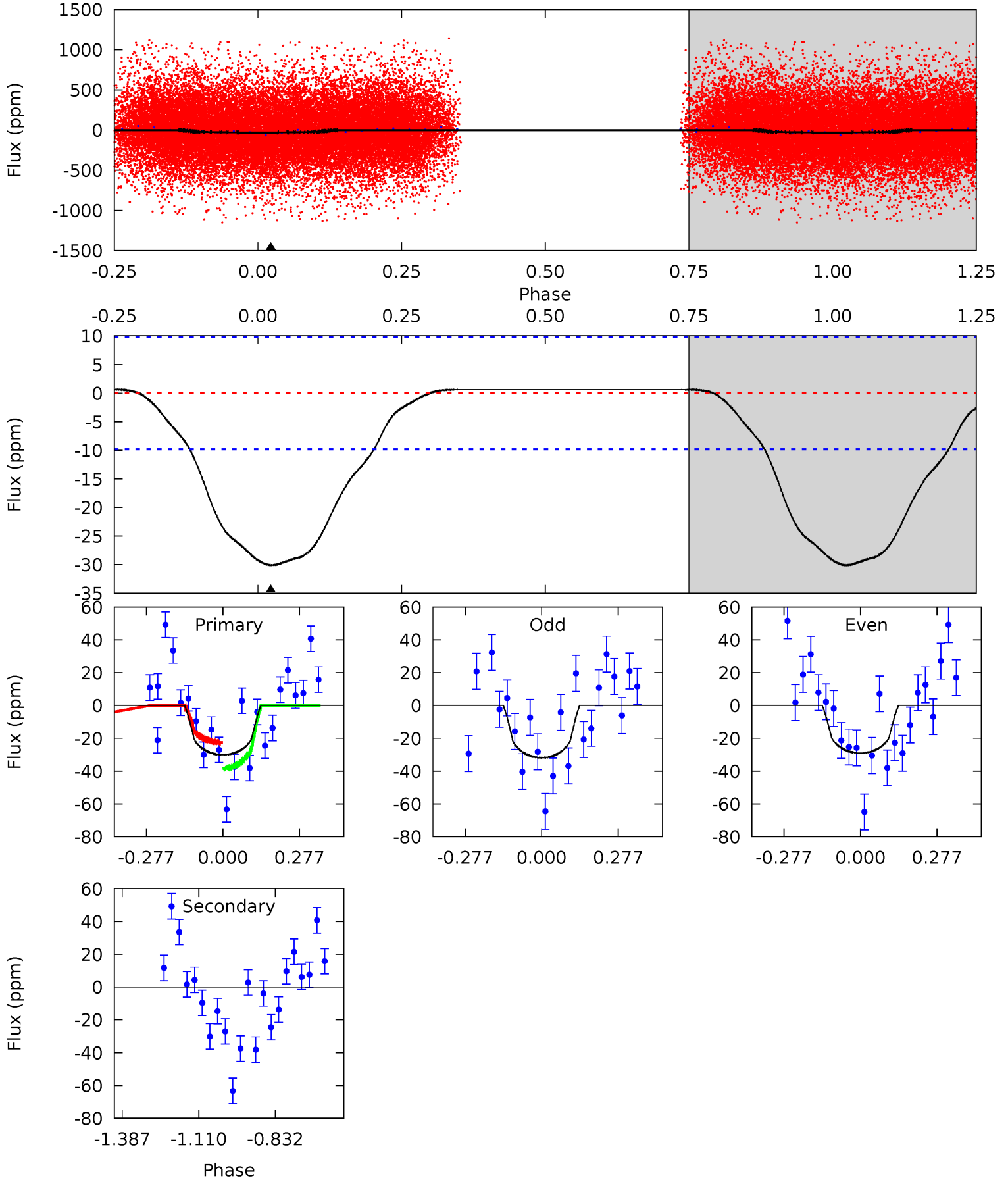
TCE 006435767-04 P= 0.594446 Days $T_0=131.700442$ (BKJD)



DV Model-Shift Uniqueness Test

006435767-04, P = 0.594434 Days, E = 131.110595 Days

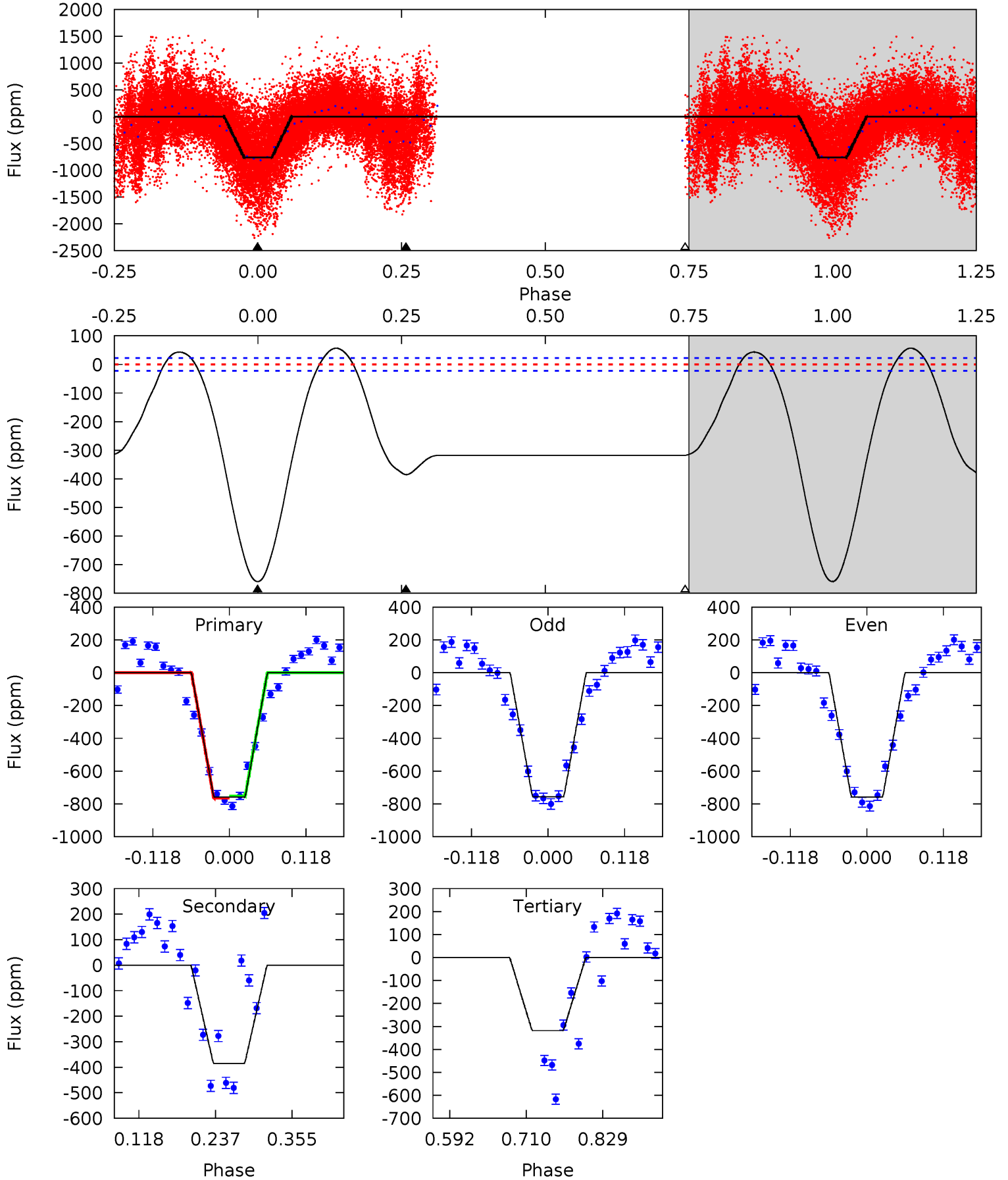
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	0	0	0	4.35	1.09	0.37	13.3	13.3	0	0	0.64	1.09	0.02	3.52



Alt Model-Shift Uniqueness Test

006435767-04, P = 0.594446 Days, E = 131.105996 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
154.0	78.1	64.5	0	4.53	1.56	23.4	89.5	154.0	13.6	78.1	0.21	1.00	0.07	1.39



Stellar Parameters For KIC 006435767

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5395^{+159}_{-143}	$4.593^{+0.037}_{-0.120}$	$-0.200^{+0.300}_{-0.300}$	$0.770^{+0.143}_{-0.061}$	$0.859^{+0.078}_{-0.096}$	$2.654^{+0.453}_{-1.003}$
	+3%/-3%	+1%/-3%	+150%/-150%	+19%/-8%	+9%/-11%	+17%/-38%
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 006435767-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 2	$0.65^{+0.52}_{-0.45}$	2589^{+117}_{-100}	-2846^{+5948}_{-668}	$-0.004^{+0.838}_{-1.039}$
Alt.	-385 ± 5	$2.43^{+0.73}_{-0.66}$	2596^{+127}_{-102}	4589^{+644}_{-435}	$6.145^{+5.380}_{-2.499}$

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 $A_{\text{obs}} \gg 1.0$

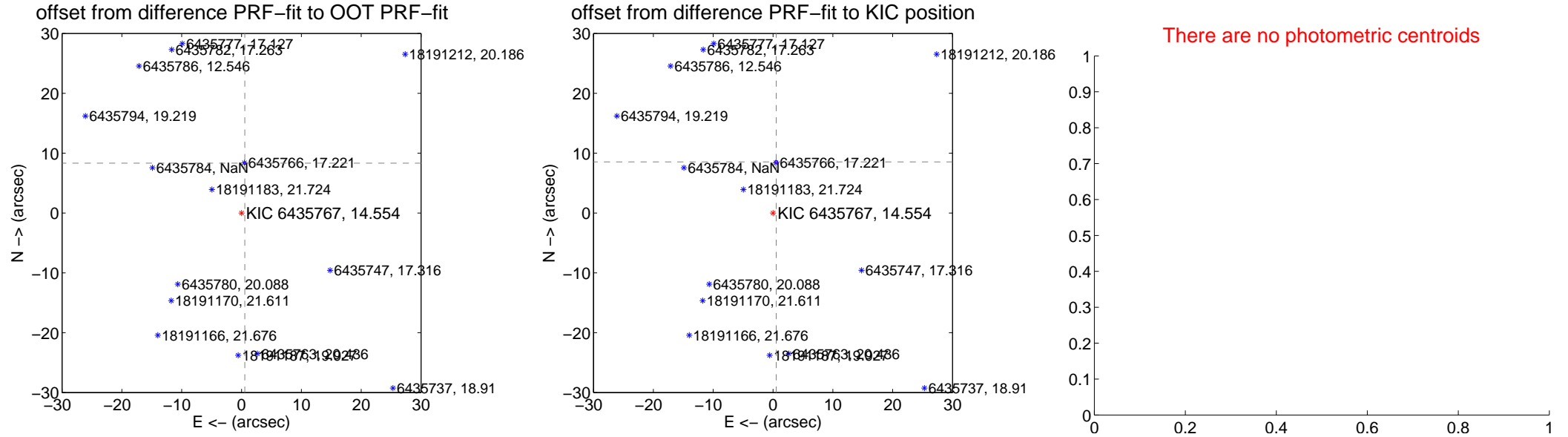
DV Centroid Data

Supplemental centroid analysis for 006435767-04. Kepler magnitude: 14.55. Transit SNR 8.81

There are 4 quarters with good PRF difference image offsets

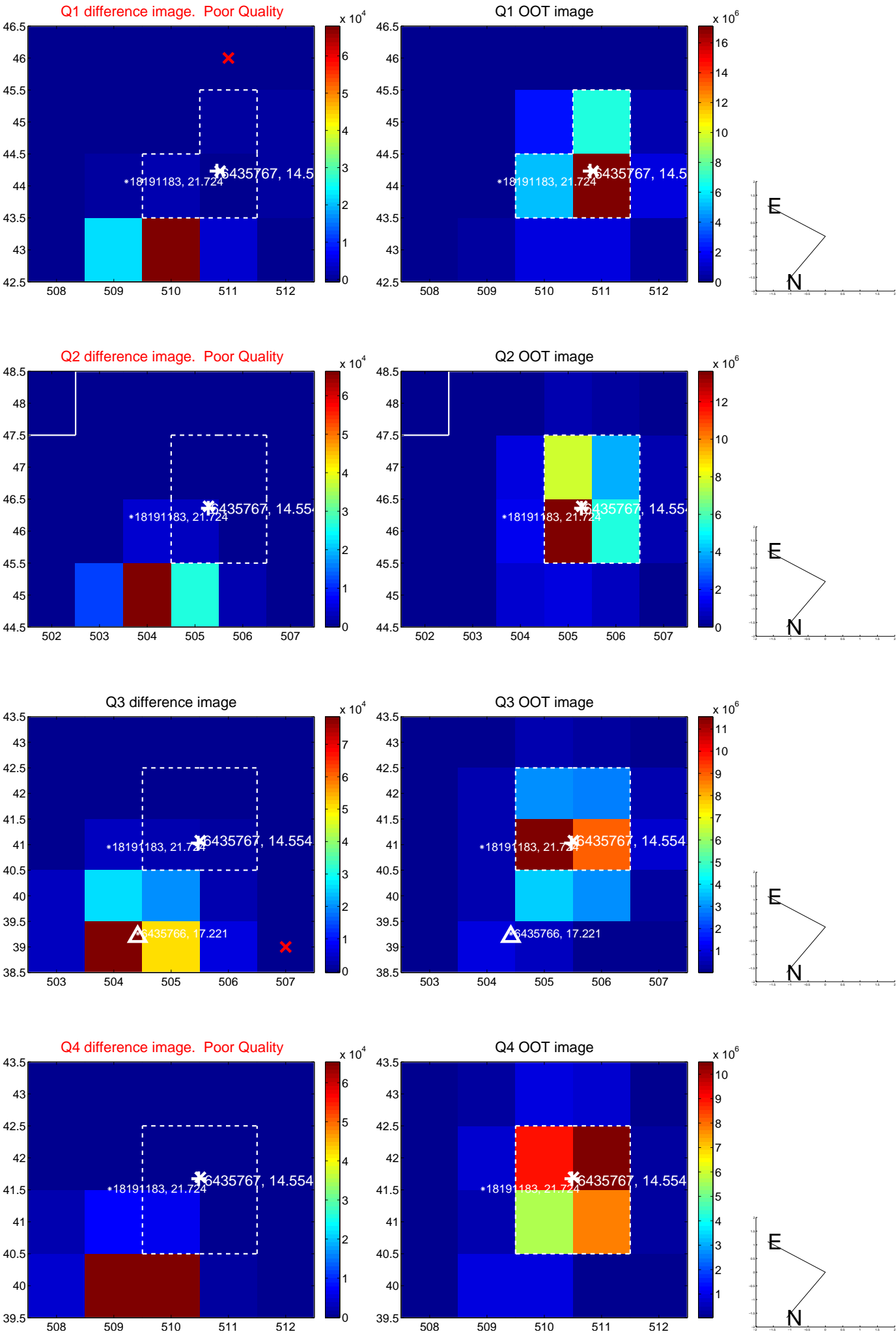
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.352 \pm 0.067	124.64	-0.543 \pm 0.067	8.334 \pm 0.067
PRF-fit source offset from KIC position	8.564 \pm 0.074	115.91	-0.537 \pm 0.068	8.547 \pm 0.074
photometric centroid source offset	—	—	—	—

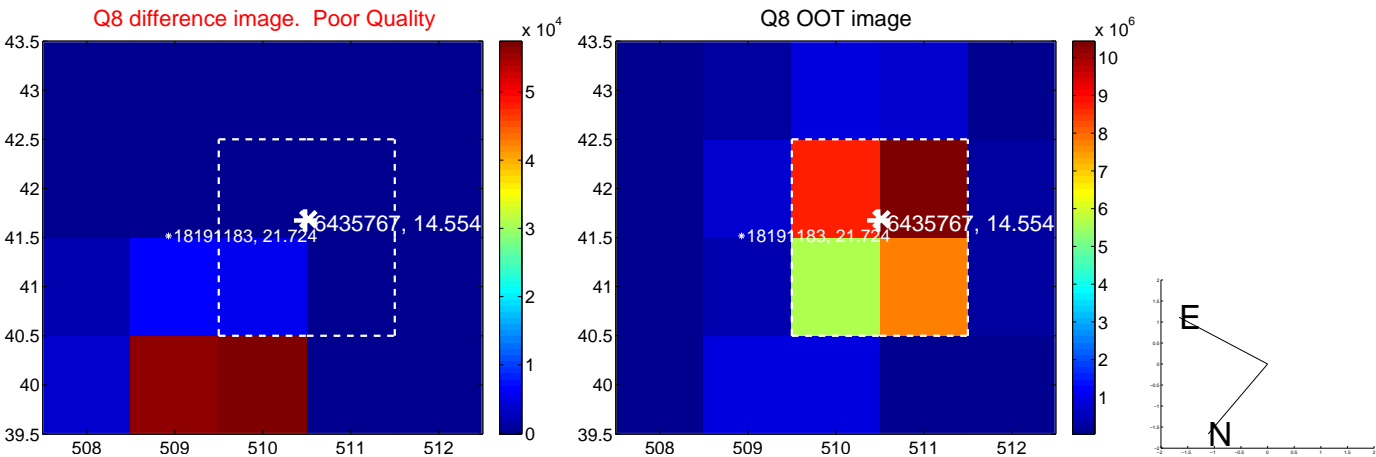
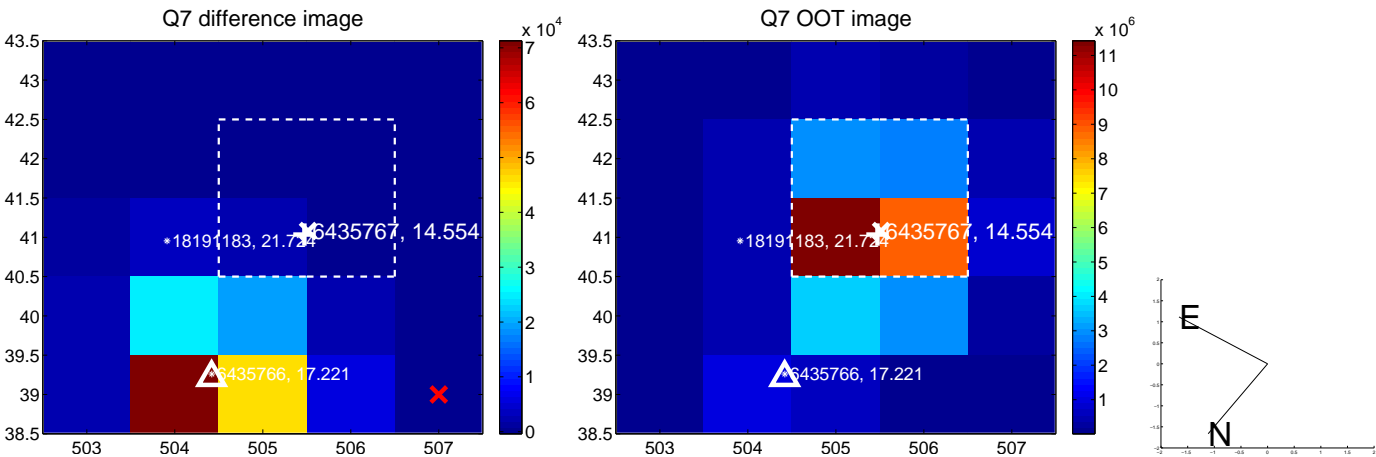
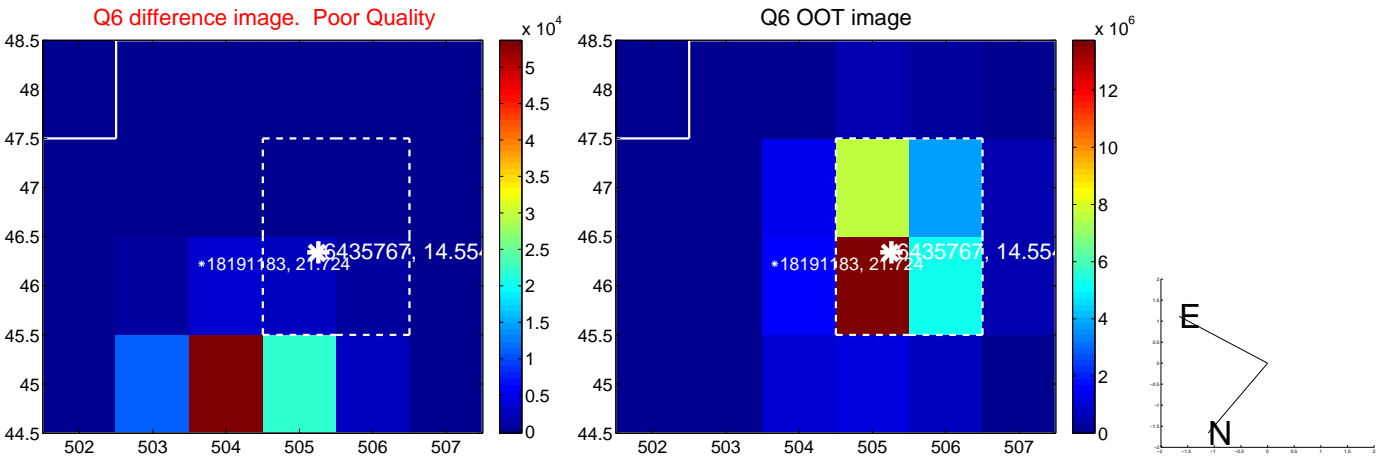
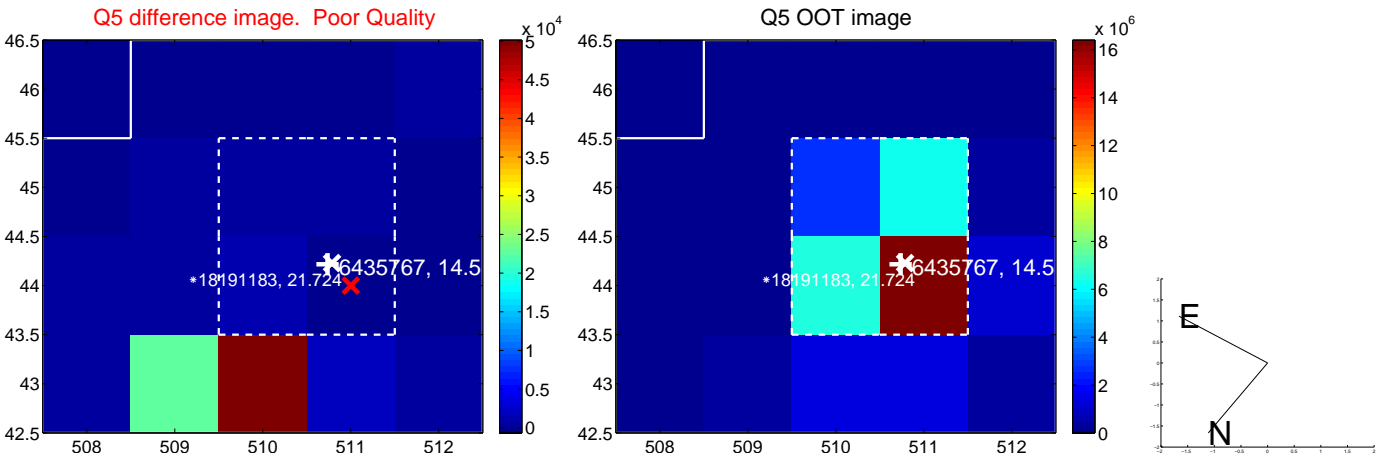


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

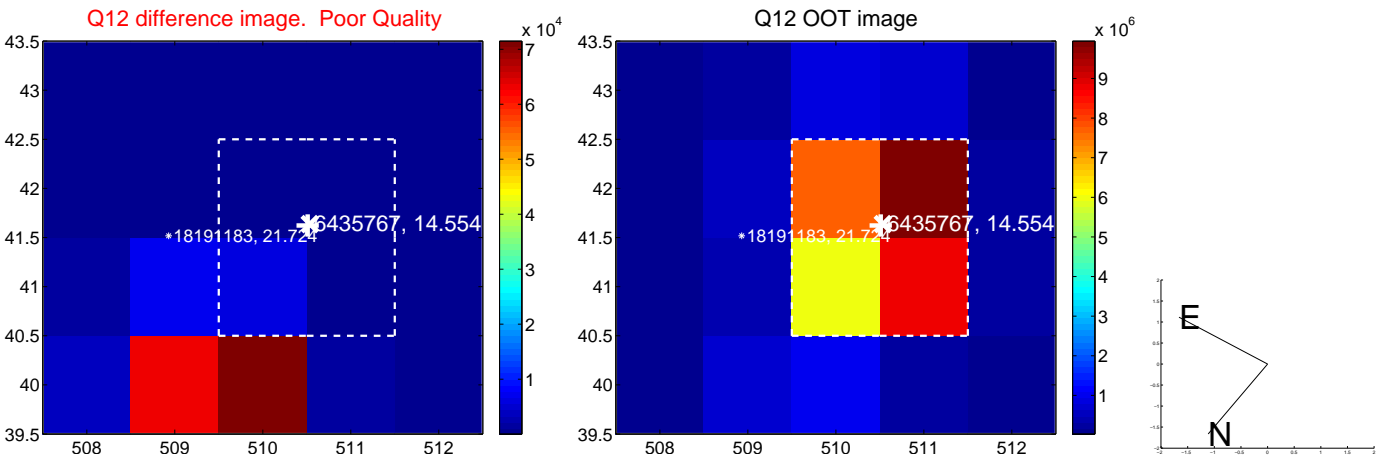
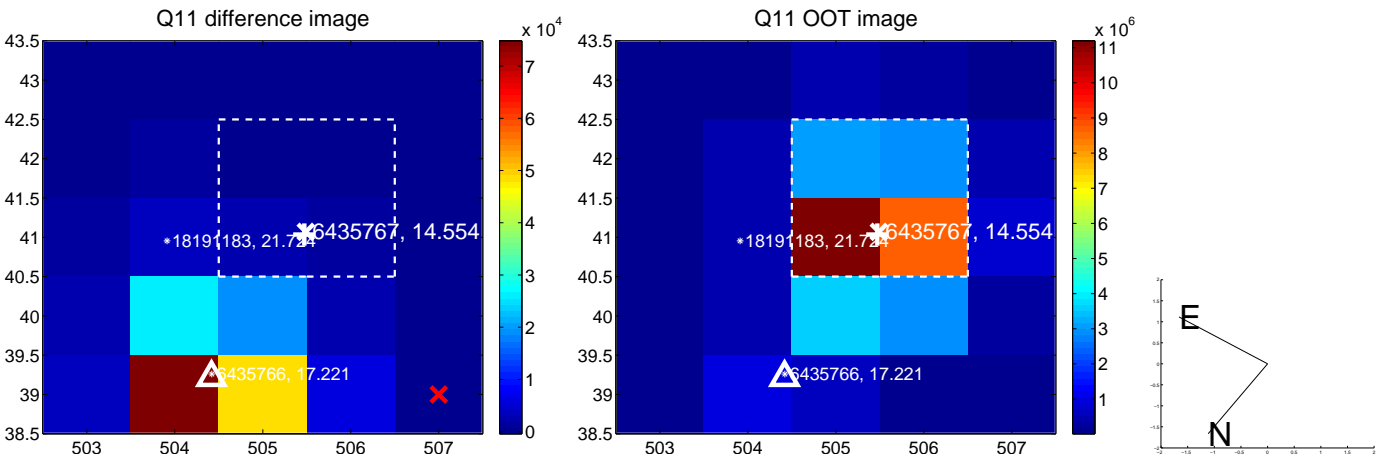
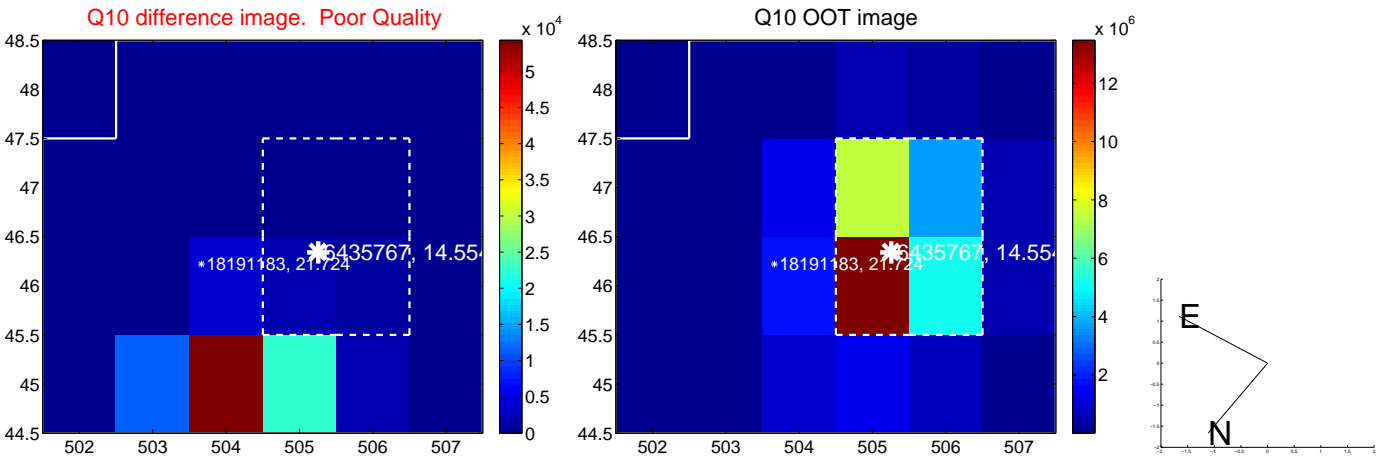
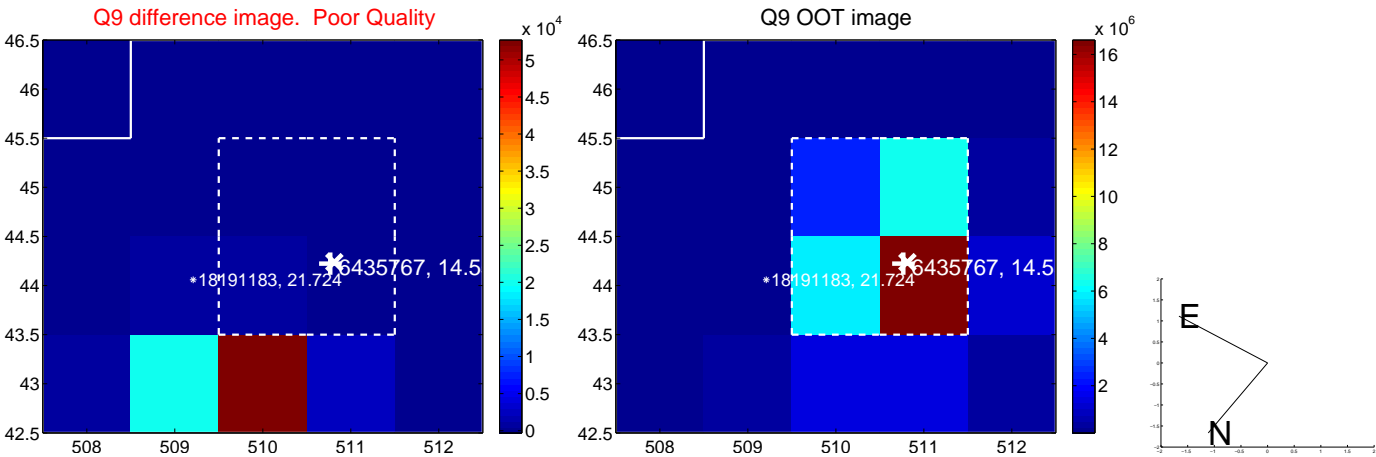
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



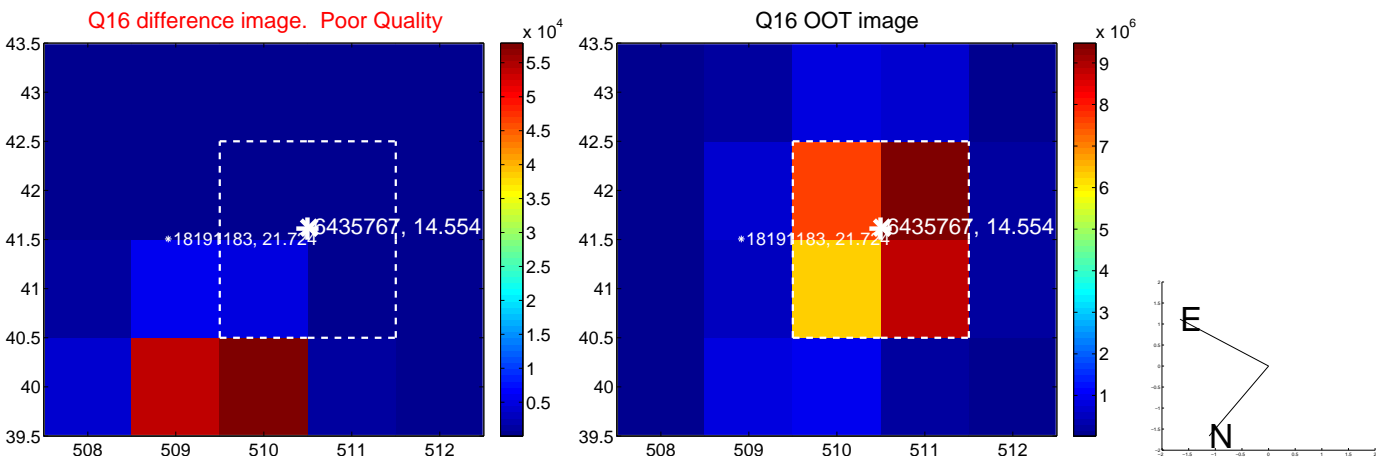
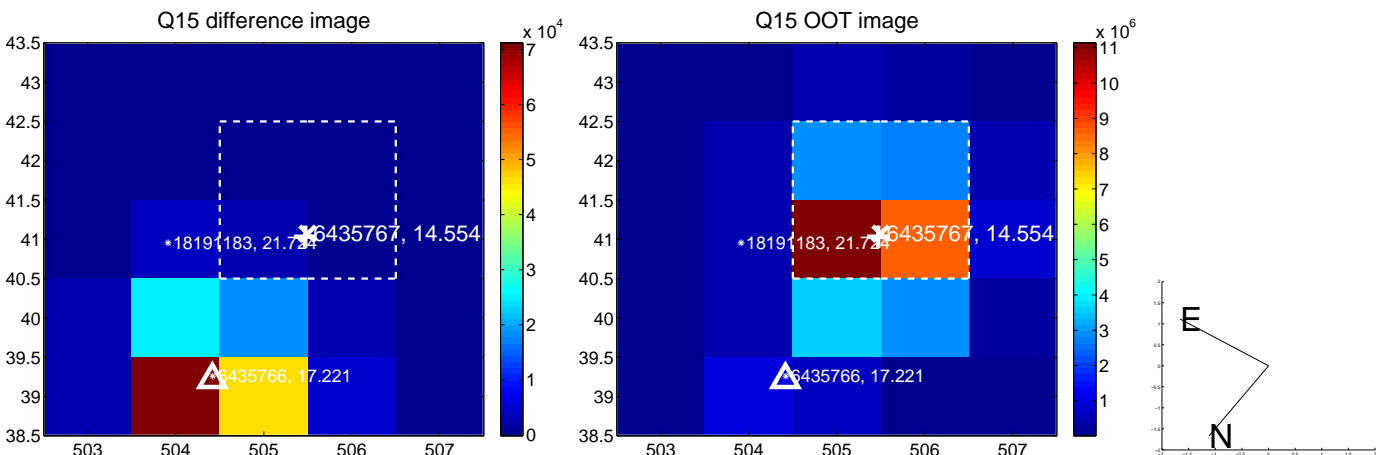
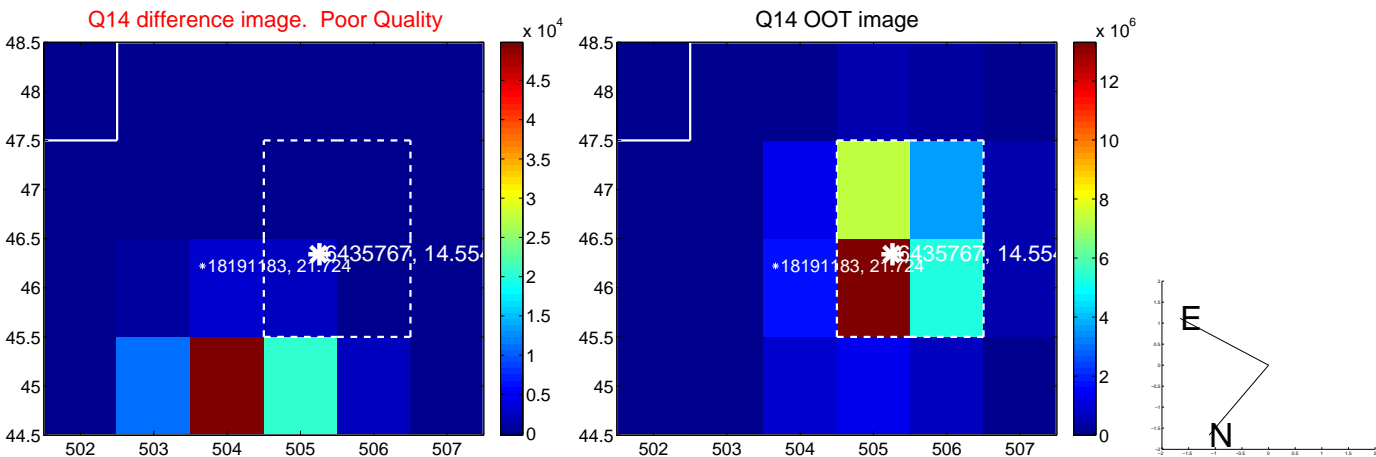
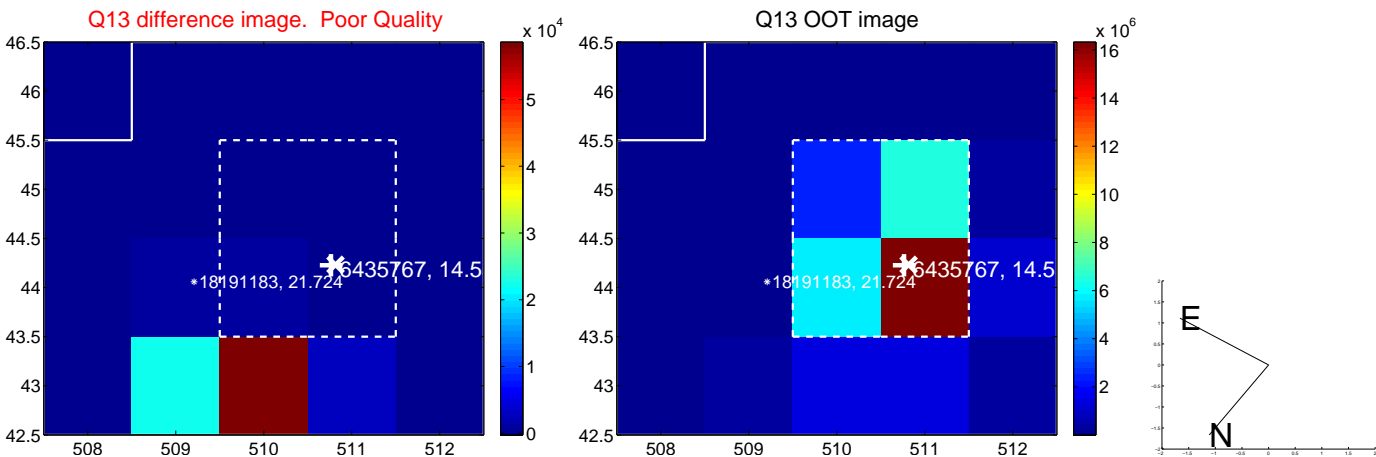
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



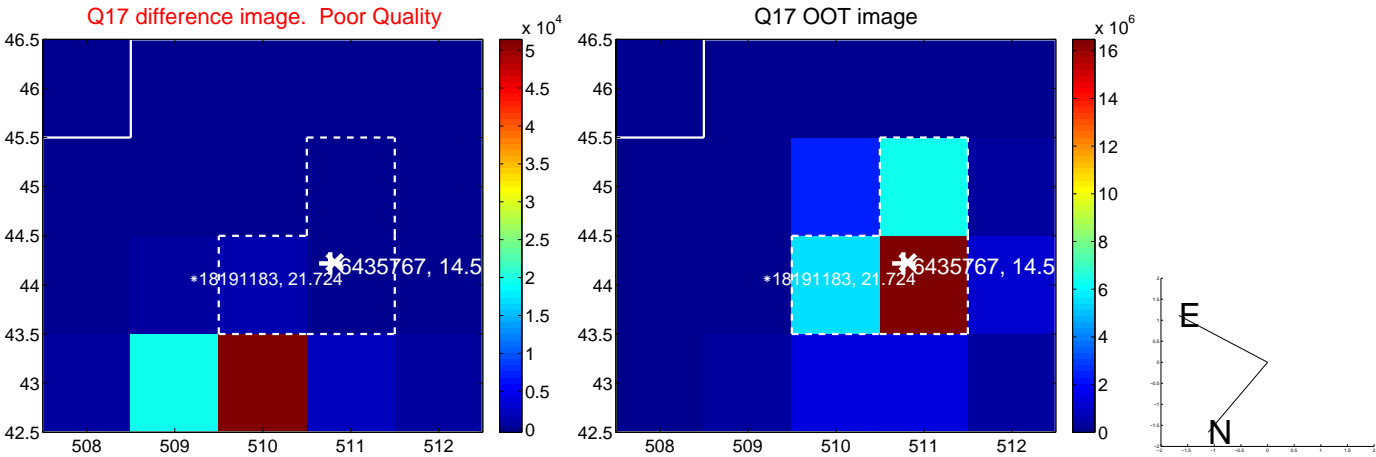
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

